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FOR THE PROMOTION
OF HEALTH

Founded 1876

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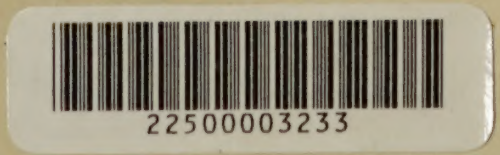

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The Royal Institute of British Architects

INCORPORATED SEVENTH OF WILLIAM IV. AND FIFTIETH OF VICTORIA

JOURNAL OF PROCEEDINGS

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FIFTY-NINTH YEAR OF FOUNDATION

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1893

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INCORPORATED SEVENTH OF WILLIAM IV. AND FIFTIETH OF VICTORIA

58TH SESSION 1892–93

ABSTRACT OF PROCEEDINGS AT GENERAL MEETINGS.

7th November 1892. FIRST GENERAL MEETING (ORDINARY), Mr. J. MACVICAR ANDERSON, *President*, in the Chair.—Nomination of candidates for admission. Announcement of name of passed candidate in the October Statutory Examination. OPENING ADDRESS OF THE SESSION, by the President. Vote of thanks. **Minutes, page 36.**

21st November 1892. SECOND GENERAL MEETING (BUSINESS), Mr. J. MACVICAR ANDERSON, *President*, in the Chair.—Decease announced of John Goldicutt Turner and James Williams, *Fellows*. Statement respecting November Examinations and announcement of names of gentlemen registered as Students. Election of members. **Minutes, page 57.**

———— SPECIAL GENERAL MEETING, Mr. J. MACVICAR ANDERSON, *President*, in the Chair.—Election of Mr. William Emerson as Hon. Secretary. **Minutes, page 58.**

———— SECOND GENERAL MEETING (ORDINARY), Mr. J. MACVICAR ANDERSON, *President*, in the Chair.—Paper: PICTURE-GALLERY DECORATION, by Mr. J. D. Crace [*H.A.*]. Discussion. **Minutes, page 58.**

5th December 1892. THIRD GENERAL MEETING (ORDINARY), Mr. J. MACVICAR ANDERSON, *President*, in the Chair.—Announcement of names of gentlemen registered as Probationers; and of passed candidates in the Examination to qualify for candidature as Associate. Announcement of award of Prizes. Paper: SOME PROBLEMS OF TOWN AND CITY DEVELOPMENT, by Mr. William C. Street [*F.*]; and discussion. **Minutes, page 92.**

19th December 1892. FOURTH GENERAL MEETING (ORDINARY), Mr. J. MACVICAR ANDERSON, *President*, in the Chair.—Nomination of candidates for admission. Announcement that by a resolution of the Council, under the terms of By-laws 20 and 23, two Fellows and four Associates had ceased to be members of the Royal Institute. The recommendation of the Council to admit to alliance the Institute of Architects of New South Wales, adopted. Paper: THE HYPÆTHRAL TEMPLE, by Dr. W. Dörpfeld, translated by Mr. Gill, read by Prof. Aitchison, A.R.A. [*F.*]; and discussion. **Minutes, page 104.**

9th January 1893. FIFTH GENERAL MEETING (BUSINESS), Mr. J. MACVICAR ANDERSON, *President*, in the Chair.—Decease announced of John Gibson, *Past Vice-President* (*Royal Gold Medallist* 1890). Announcement that by a resolution of the Council, under the terms of By-laws 20 and 23, one Fellow and two Associates had ceased to be members of the Royal Institute. Election of members. Announcement of the award of the Prizes and Studentships for 1892–93. Paper: TOURS IN SPAIN AND THE ISLAND OF MAJORCA, by Mr. Andrew N. Prentice [*A.*]; and discussion. **Minutes, page 152.**

16th January 1893. SIXTH GENERAL MEETING (ORDINARY), Mr. J. MACVICAR ANDERSON, *President*, in the Chair.—Presentation to the Institute of the Portrait of Mr. Alfred Waterhouse, R.A., *ex-President*: ADDRESSES TO STUDENTS by the President and the Hon. Secretary. Presentation of Medals and other Prizes. **Minutes, page 154.**

30th January 1893. SEVENTH GENERAL MEETING (ORDINARY), Mr. J. MACVICAR ANDERSON, *President*, in the Chair.—Paper: THE ADVANTAGES OF ADOPTING A GENERAL SCHEME IN MAKING IMPROVEMENTS TO LONDON STREETS, by Mr. Arthur Cawston [*A.*]; and discussion. **Minutes, page 178.**

13th February 1893. EIGHTH GENERAL MEETING (ORDINARY), Mr. J. MACVICAR ANDERSON, *President*, in the Chair.—Decease announced of Walter Charles James, Lord Northbourne, *Hon. Fellow*. Announcement that the Council proposed to submit to Her Majesty the Queen the name of Mr. Richard Morris Hunt, *Hon. Corr. Mem.* (New York), as the Royal Gold Medallist 1893. Paper: THE CATHEDRAL OF PALMA, MAJORCA: ITS ORIGIN AND DEVELOPMENT, WITH SOME NOTES OF MINOR BUILDINGS IN ITS NEIGHBOURHOOD, by Colonel Lenox Prendergast [*H.A.*]; and discussion. **Minutes, page 191.**

27th February 1893. NINTH GENERAL MEETING (ORDINARY), Mr. J. MACVICAR ANDERSON, *President*, in the Chair.—Decease announced of William Allen Boulnois and John Myrie Cory (Shanghai), *Fellows*. Nomination of candidates for admission. Three Papers on Terra Cotta,

by Mr. E. Ingress Bell [*A.*], Mr. S. H. Leech (of Messrs. Doulton & Co.), and Mr. Leonard Stokes [*F.*]; and discussion. **Minutes, page 223.**

18*th March* 1893. SPECIAL GENERAL MEETING, Mr. J. Macvicar Anderson, *President*, in the Chair.—Recommendation of the Council as to the Royal Gold Medallist 1893 adopted, *nem. con.* **Minutes, page 243.**

——————— TENTH GENERAL MEETING (BUSINESS), Mr. J. Macvicar Anderson, *President*, in the Chair.—Decease announced of Alfred Pope Strong, *Fellow*. Election of members. Discussion on the Report of the Science Standing Committee upon Light and Air, and Resolution passed that the general principles of the Report be adopted, and that it be referred back to the Committee for reconsideration of details. **Minutes, page 243.**

27*th March* 1893. SPECIAL GENERAL MEETING, Mr. Henry Currey, *Vice-President*, afterwards Mr. J. Macvicar Anderson, *President*, in the Chair.—Decease announced of J. G. Elgood, *Fellow*, and George Snell, *Hon. Corr. Member* (Boston, U.S.A.). The recommendation of the Council, that Mr. J. Macvicar Anderson, *President*, be requested to allow himself to be nominated as President for the ensuing year of office, and that consequently By-law 26 be suspended, adopted. Announcement of the names of Probationers who had passed the Intermediate Examination. Recommendations of the Council to alter By-laws Nos. 7, 8, and 9, in reference to nomination and election of candidates for membership, considered *seriatim* and, subject to the insertion of certain words in By-law No. 9, adopted. Regulations made by the Council for carrying into effect By-laws Nos. 7 and 9 as altered, reported for confirmation and adopted. Report of the Council *re* Qualifications of Fellows considered; and a Regulation contained therein as regards By-law No. 3 reported for confirmation and, after slight amendment, adopted. **Minutes, page 268.**

17*th April* 1893. SPECIAL GENERAL MEETING, Mr. Henry Currey, *Vice-President*, in the Chair.—Resolution passed at the Special General Meeting of the 27th March 1893, *re* suspension of By-law 26 for one year, confirmed. Resolution passed at the same Meeting, amending By-laws 7, 8, and 9, confirmed. **Minutes, page 300.**

——————— TWELFTH GENERAL MEETING (ORDINARY), Mr. Henry Currey, *Vice-President*, in the Chair.—Decease announced of Joseph Stretch Crowther and William Charles Tuke, *Fellows*. Announcement of the names of gentlemen registered as Probationers. Paper: Examination of Building Stones, by Mr. H. W. Burrows [*A.*]; and discussion. **Minutes, page 300.**

1*st May* 1893. FIFTY-EIGHTH ANNUAL GENERAL MEETING, Mr. J. Macvicar Anderson, *President*, in the Chair.—Decease announced of R. Herbert Carpenter, F.S.A., and Thomas Stone, *Fellows*. Announcement of names of passed candidates in the Examination to qualify for candidature as Associate; and of passed candidates in the April Statutory Examinations. Report of the Council on the state of the property and the affairs of the Royal Institute received and adopted. Council authorised to sell stock to the amount of £1,310 2*s.* 9*d.* to meet exceptional expenditure incurred during 1890–93. Scrutineers to direct the election of the Council and Standing Committees appointed. Nomination of Auditors, 1893–94. Appointment of the Statutory Board of Examiners. **Minutes, page 331.**

15*th May* 1893. FOURTEENTH GENERAL MEETING (ORDINARY), Mr. J. Macvicar Anderson, *President*, in the Chair.—Decease announced of George Pownall, *Fellow*. Nomination of candidates for admission. Paper: How to Use Vitruvius, by Professor G. Baldwin Brown, M.A. [*H.A.*]; and discussion. **Minutes, page 372.**

5*th June* 1893. SPECIAL GENERAL MEETING, Mr. J. Macvicar Anderson, *President*, in the Chair.—The Council's recommendation to so modify By-law 25 as to permit every Allied Society to be represented on the Council of the Institute referred back to them for further consideration. **Minutes, page 413.**

——————— FIFTEENTH GENERAL MEETING (BUSINESS), Mr. J. Macvicar Anderson, *President*, in the Chair.—Decease announced of Caleb Stanger, *Associate*. Announcement that by a resolution of the Council, under the terms of By-laws 20 and 23, one Fellow and three Associates had ceased to be members of the Royal Institute. Election of members. The Report of the Scrutineers appointed to direct the election of the Council, read; and the Council and Auditors for the official year 1893-94, declared to be duly elected. The Reports of the Scrutineers appointed to direct the election of the four Standing Committees, read; and the Committees declared to be duly elected. Mr. G. A. T. Middleton [*A.*], in accordance with notice previously given, called attention to the allegation that the Council petitioned against the Architects' Registration Bill 1893, without specific authority from the members so to do; and moved that before the Council take action in a matter of such great importance, the members should be fully consulted thereon—which motion was put and lost; and other motions by Mr. Middleton in reference to the Bill were withdrawn. **Minutes, page 413.**

19*th June* 1893. SIXTEENTH GENERAL MEETING (ORDINARY), Mr. J. Macvicar Anderson, *President*, in the Chair.—Presentation of the Royal Gold Medal to Mr. Richard M. Hunt [*Hon. Corr. M.*], New York: Address by the President; Mr. Hunt's reply, and observations by Mr. Henry White (Secretary to the United States Embassy), Baron H. von Geymüller [*Hon. Corr. M.*], and M. Paul Sédille [*Hon. Corr. M.*]. **Minutes, page 432.**

STATISTICS OF THE SESSION, 1892–93.

SUBSCRIBING MEMBERS ELECTED.

FELLOWS (34).

Henry White	1, Parade Passage, Penzance.
*‡Herbert Frederick Tomalin, M.Inst.C.E.	Public Works Department, Colombo, Ceylon.
*‡Paul Ogden	60, King Street, Manchester.
*‡Charles Steward Smith	164, Friar Street, Reading.
*John Evelyn Trollope	28, Craven Street, Strand, W.C.
Samuel James Newman	32, Abington Street, Northampton.
Arthur William Brewill	Pelham Chambers B, Angel Row, Nottingham.
Richard Harris Hill, M.Inst.C.E.	3, Lombard Court, Lombard Street, E.C.
Charles William Bevis	Elm Grove Chambers, Yarborough Road, Southsea.
William Ravenscroft	6, Market Place, Reading.
William James Morley	269, Swan Arcade, Bradford; and Bolton.
Stephen Salter, jun.	"Sherborne," Maidenhead; and Ryde, I. W.
George Henry Jeffery	Florence, Italy.
Alexander Ross	Riverfield, Inverness.
William Arthur Heazell	Bank Chambers, Nottingham.
*‡James Henry La Trobe	20, Clare Street, Bristol.
Silvanus Trevail	80, Lemon Street, Truro.
Rhodes Calvert	4, Forster Square, Bradford.
Joseph Pilling	37, Mawdsley Street, Bolton.
Alfred Edward Purdie	Talbot House, Crownhill Road, Willesden, N.W.
Thomas Butler Wilson	12, East Parade, Leeds; and Harrogate.
John Henry Woodhouse	100, King Street, Manchester.
George Harry Willoughby	100, King Street, Manchester.
Jesse Horsfall	The Gable, Woodlands, Todmorden.
*Edward Hewitt	Temple Chambers, 29, Brasennose Street, Manchester.
Robert Walker	Public Buildings, Windermere.
*Frederick Montague Gratton	16, The Bund, Shanghai.
John Flavel Curwen	Highgate, Kendal.
*††Arthur Crow	18, Great Prescot Street, E.
Frederick Bennett Smith	17, Brasennose Street, Manchester.
Thomas Egbert Lidiard James	Lonsdale Chambers, 27, Chancery Lane, W.C.
Thomas Stevens	Richmond Chambers, Bournemouth.
‡Francis Edward Caws	22, Fawcett Street, Sunderland.
Edward Glover, M.A.	19, Prince Patrick Terrace, North Circular Road, Dublin.

ASSOCIATES (49).

‡Alfred Charles Houston (*Ashpitel Prizeman* 1892)	13, Furnival's Inn, E.C.
‡Robert John Angel (*Grissell Medallist* 1891)	121, Saxony Road, Liverpool.
‡Frank Morrish Harvey	66, Cheriton Square, Upper Tooting, S.W.
‡Ernest Harrison Jones	17, St. James's Road, Liverpool.
‡Matthew Starmer Hack	University Hall, Gordon Square, W.C.
‡Alfred Wickham Jarvis	49, Drayton Park, Highbury, N.
‡James Paxton	47, Bernard Street, Russell Square, W.C.
††Albert William Cleaver	Highbury Villa, Leytonstone, Essex.
‡George McLean Ford	30, Bernard Street, Russell Square, W.C.
‡Thomas Gildart Mansell	Imperial Chambers A, Colmore Row, Birmingham.
‡Robert Alexander Reid	68, Blenheim Crescent, Notting Hill, W.
‡William Henry Burt	23, Denbigh Street, S.W.
‡John Melville Keith	55, Achilles Road, West Hampstead, N.W.
‡Arthur Heron Ryan-Tenison	7, Great College Street, Westminster, S.W.
‡William Henry Ward	18, Lyndhurst Road, Hampstead, N.W.
‡Leslie Waterhouse, M.A.Cantab.	[Tasmania] Leonard House, Upper Tulse Hill, S.W.
‡Theophilus Arthur Allen	3, Duke Street, Adelphi, W.C.
‡William Nicholson Cumming	c/o H. J. Blanc, Esq., A.R.S.A., 73, George St., Edinburgh.
‡John James Cresswell	Victoria Chambers, Grimsby.

* *Previously Associates.* † *Passed Statutory Examination.* ‡ *Passed Examination in Architecture.*

‡Harold Brakspear	The Priory, Corsham, Wiltshire.
‡Alfred Ryshworth Hill	21, Upper Bedford Place, W.C.
‡Edmund Herbert Child	47, Bernard Street, Russell Square, W.C.
‡William Edwin Johnson	22, Buckingham Street, Strand, W.C.
‡John William Blakey	c/o C. E. Deacon, Esq., Central Buildings, Liverpool.
‡Albert Edward Dixon	54, Francis Street, Leeds.
‡William James Anderson	136, Wellington Street, Glasgow.
‡Fred Hunter Lines	86, Week Street, Maidstone.
‡Thomas Ashton Lofthouse	62, Albert Road, Middlesbrough.
‡Marshall Robinson	24, Nelson Square, Bolton.
‡Benjamin Priestley Shires (*Tite Prize-man* 1886)	1, Springfield Terrace, St. Jude's, Plymouth.
‡William Clarke Ashworth	8, Adam Street, Portman Square, W.
‡William Henry Beevers	25, Bond Street, Leeds.
‡Henry Blackbourn	6, Queen Anne's Gate, Westminster, S.W.
‡Sidney Frank Harris	16, St. George's Avenue, Northampton.
‡James Ransome	11, Argyll Place, Regent Street, W.
‡Arnold Thornely	3, Weld Road, Birkdale, Southport.
‡Edmund Blayney-Clarke	178, Lozells Road, Birmingham.
‡Charles James Clark	Beaumont House, Hale Road, Farnham, Surrey.
‡Henry Currie Creighton	27, Devon Place, Newport, Mon.
‡William Richard Gleave	Beulah Mount, Davenport Road, Hazel Grove, Stockport.
‡Gilbert Murray Simpson	16, Ship Street, Brighton.
‡Edwin Arthur Hill	Oakfield Lodge, Brentwood, Essex.
‡Edmund Dealtry Pickford	329, Lordship Lane, Dulwich Rise, S.E.
‡Andrew Robertson	56, Kenmure Street, Pollokshields, Glasgow.
‡William Cowie	c/o H. V. Eaglesham, Esq., 54, Fort Street, Ayr, N.B.
‡Charles Henry Hebblethwaite	Hopwood Hall, Halifax, Yorkshire.
‡Frank Tupper White	34, Gubyon Avenue, Herne Hill, S.E.
‡Percy Frank Hockings	49, Kellett Road, Brixton, S.W.
‡Alfred Gladding	34, Gower Road, Forest Gate, E.

HON. ASSOCIATES (2).

Alexander Wood, M.A.Oxon.	3, St. Peter's Square, Ravenscroft Park, W.
Thomas Henry Wyatt	20, Queen Square, W.C.

NON-SUBSCRIBING MEMBERS ELECTED (2).

HON. CORR. MEMBERS.

Charles Babcock, Professor of Architecture	Cornell University, Ithaca, New York State.
Eugène Müntz, Member of the Institut de France	14, Rue de Condé, Paris.

MEMBERS DECEASED DURING THE SESSION.

FELLOWS (14).

William Allen Boulnois.
Richard Herbert Carpenter.
John Myrie Cory (Shanghai).
Joseph Stretch Crowther (Manchester).
John Garrard Elgood (Manchester).
John Gibson.
Richard Smith Lander.
Joseph Peacock.
George Pownall.
Thomas Stone.
Alfred Strong.
William Charles Tuke (Manchester).
John Goldicutt Turner (Diss).
James Williams (late of H.M. Office of Works).

ASSOCIATES (3).

Clement William Chapman.
Caleb Stanger (Bromley).
Alfred Lovejoy.

HON. ASSOCIATES (2).

Herbert Clifford Saunders.
Thomas Hawksley.

HON. FELLOW.

Lord Northbourne.

RETIRED FELLOW.

Henry Clutton.

HON. CORR. MEMBERS (2).

Heinrich Lang (Karlsruhe, Germany).
George Snell (Boston, Mass.).

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SPON (E. & F. N.)—Engineers' &c. book of prices. 4o. *Lond.* 1892

TANN (J.)—Safes, &c. 4o. *Lond.* 1890

TOTAL:—8.

PURCHASES FOR THE LIBRARY AND COLLECTION.

BOOKS, PAMPHLETS, &c.

ALLGEMEINE BAUZEITUNG—(*In progress*). fo. *Vienna* 1892–93

ATHENÆUM (*THE*)—(*In prog.*). 4o. *Lond.* 1892–93

AUDSLEY (W. J. & G. A.)—Handbook of Christian symbolism. 4o. *Lond.* 1865

AUER (H.) & OTHERS—Monuments de Vienne. Vol. iii. Palais du Parlement. la. fo. *Vienna* 1890

BAROZZI DA VIGNOLA (G.)—Regole delli cinque ordini. fo. —— ——

Alcvne opere d' architettvra. fo. *Rome* 1617 (*Bound in one.*)

BUILDING ACTS—Fire and Buildings regulations in foreign countries. 8o. *Washington* 1892

CORROYER (É.)—L'architecture romane. New ed. 8o. *Paris* ——

L'architecture gothique. 8o. Paris 1891

CROSSING (W.)—Old stone crosses of Dartmoor borders. 8o. *Exeter* 1892

DENISON (E. B.) LORD GRIMTHORPE—Architecture a profession or an art? pam. la. 8o. *Lond.* 1893

FERSTEL (M. VON) AND OTHERS—Monuments de Vienne. Vol. iv. L'Université. la. fo. *Vienna* 1892

GOSSET (A.)—Construction des théâtres. fo. *Paris* 1886

HART (J.)—Oblique arches. 3rd ed. sm. fo. *Lond.* 1848

JACKSON (T. G.)—Wadham College. la. 4o. *Oxford* 1893

JERVIS (G.)—Tesori sotterranei dell' Italia: Atlas. la. fo. *Florence* 1889

KRAFFT (J. C.)—Traité de la charpente. 2 vols. fo. *Paris* 1819–21

LABACCO (A.)—Libro appartenente a l' architettvra. fo. —— ——

(*Bound with Barozzi "Regole" & "Alcvne opere."*)

LABORDE (A. DE)—Nouveau jardins de la France. fo. *Paris* 1808

LE BON (G.)—Monuments de l'Inde. la. 4o. *Paris* 1893

LEFUEL (M.) & ROUYER (E.)—Appartements privés au palais des Tuileries. fo. *Paris* 1867

MACGIBBON (D.) & ROSS (T.)—Castellated and domestic architecture of Scotland. Vols. iv. & v. la. 8o. *Edinb.* 1892

MONDUIT (L.)—Stéréotomie. Text la. 8o. *Paris* 1889 Plates fo. *Paris* ——

PALLADIO (A.)—Fabbriche antiche. la. fo. *Lond.* 1730

PFNOR (R.)—Château de Vaux-le-Vicomte. fo. *Paris* 1888

RAMÉE (D.)—L'architecture et la construction pratiques. 8o. *Paris* 1868

RIEWEL (H. VON)—Monuments de Vienne. Vol. v. L'église votive. la. fo. *Vienna* 1892

ROUSSELET (L.)—L'Inde des rajahs. sm. fo. *Paris* 1875

SAUVAGEOT (C.)—Enseignement du dessin par les solides. 4o. *Paris* 1882

TATHAM (C. H.)—Designs for ornamental plate. (*Imperfect.*) la. fo. *Lond.* 1806

THAUSING (M.)—Votivkirche in Wien. fo. *Vienna* 1879
TIMES (THE)—(*In progress.*) la. fo. *Lond.* 1892–93
VITRUVIUS—De architectura. mo. *Lcipzig* 1892
ZATTA (A.)—San Marco di Venezia. la. fo. *Venice* 1761

TOTAL:—Volumes (*exclusive of Periodicals and Parts of Works issued in a serial form now in progress*) 31; Pamphlet 1.

PARLIAMENTARY PAPERS.

BUILDING SOCIETIES—Building Societies Act (1874) Amendment Bill. (Bill 102.) fo. *Lond.* 1893
Building Societies Bill 1893. (Bill 45.) fo. *Lond.* 1893
Building Societies (No. 2) Bill. (Bill 167.) fo. *Lond.* 1893
BUILDING SOCIETIES (continued)—Return. (239.) (348.) fo. *Lond.* 1892
CHURCH—Return of churches built or restored since 1873. (219.) fo. *Lond.* 1892
CITY & TOWN—Town Holdings: Report from select committee. (214.) fo. *Lond.* 1892
LAND—Leaseholders (Purchase of fee simple) Bill. (Bill 61.) fo. *Lond.* 1893
Leasehold Law Amendment Bill 1893. (Bill 101.) fo. *Lond.* 1893
Occupying tenants enfranchisement Bill. (Bill 100.) fo. *Lond.* 1893
LAW & LAW REPORTS—Copyright: Acts 1734–1888; Bills 1886, 1890. fo. *Lond.* 1735–1890
London Sky Signs Act 1891. fo. *Lond.* 1891
CIENCE & ART DEPARTMENT S. Kensington—39th report. (C. 6721.) 8o. *Lond.* 1892

TOTAL:—12.

ADDITIONS TO THE LOAN COLLECTION.

DONATIONS.

CASSELL & Co. LTD. (Messrs.) the Publishers—MITCHELL (C. F.)—Forty plates on building construction. la. fo. *Lond.* 1891
LEGG (H. A.)—BUCHAN (W. P.)—Ventilation. 12o. *Lond.* 1891
BURY (T. T.)—Architecture: Styles. 10th ed. 12o. *Lond.* 1890
OXFORD—Architectural antiquities. 8o. *Oxford* 1842
STRONG (Mrs.)—BILLINGS (R. W.)—Baronial &c. antiquities of Scotland. 4 vols. 4o. *Edinb.* 1852
WHITE (William H.) *Fellow and Secretary*—LÉVEIL (J. A.)—Vignole. 4o. *Paris* ——
WONNACOTT (W. M.)—Vaulting in England. fo. *Lond.* 1891

TOTAL:—Volumes 10.

PURCHASES.

CORROYER (É.)—L'architecture romane. New ed. 8o. *Paris* ——
L'architecture gothique. 8o. *Paris* 1891
PALUSTRE (L.)—L'architecture de la renaissance. 8o. *Paris* [1892]

TOTAL:—Volumes 3.

MEETINGS OF THE COUNCIL, AND OF BOARDS, COMMITTEES, &c.

1892.—*Year of Office continued*, 1892–93.

September 27th.—Second Meeting of the Practice Standing Committee (11 Members present).
October 3rd.—**Fifth Meeting of the Council** (10 Members present).
October 6th.—Second Meeting of the Art Standing Committee (6 Members present).
October 11th.—Third Meeting of the Literature Standing Committee (7 Members present).
October 28th.—Written and Graphic Examination (Met. Build. Act, &c.) (6 Candidates).
October 31st.—First Rota Committee of Council: Applications for Membership (2 Members present).
—————— Second Meeting of the Board of Examiners in Architecture (11 Members present).
November 2nd.—Second Meeting of the Science Standing Committee (15 Members present).
November 3rd.—Third Meeting of the Art Standing Committee (11 Members present).
November 7th.—**Sixth Meeting of the Council** (18 Members present).
November 8th.—Fourth Meeting of the Literature Standing Committee (8 Members present).
November 14th.—Third Meeting of the Board of Examiners in Architecture (19 Members present).
November 15th & 16th.—PRELIMINARY EXAMINATION in London, Manchester, and Bristol to qualify for registration as *Probationer*.
November 15th, 16th & 17th.—INTERMEDIATE EXAMINATION in London to qualify for registration as *Student*.
November 17th.—Fourth Meeting of the Board of Examiners in Architecture (10 Members present).
November 17th.—Fourth Meeting of the Art Standing Committee (12 Members present).
November 21st.—**Seventh Meeting of the Council** (18 Members present).
November 24th.—Second Meeting of the Alliance Committee of Council (4 Members present).
November 28th.—Second Meeting of Admission of Fellows, Special Committee of the whole Council (23 Members present).
November 28th to December 3rd.—EXAMINATION IN ARCHITECTURE, in London, to qualify for candidature as Associate.
December 2nd.—Fifth Meeting of the Board of Examiners in Architecture (16 Members present).
December 3rd.—Sixth Meeting of the Board of Examiners in Architecture (16 Members present).
December 5th.—**Eighth Meeting of the Council** (14 Members present).
December 7th.—Third Meeting of the Science Standing Committee (13 Members present).
December 12th.—First Meeting of the Royal Gold Medal Committee of Council (9 Members present).
December 13th.—Fifth Meeting of the Literature Standing Committee (8 Members present).
December 15th.—Second Meeting of the Finance Committee of Council (4 Members present).
December 16th.—Second Rota Committee of Council: Applications for membership (3 Members present).
December 19th.—**Ninth Meeting of the Council** (20 Members present).
December 29th.—First Meeting of the Prizes and Studentships Committee (14 Members present).

1893.

January 2nd.—**Tenth Meeting of the Council** (14 Members present).
January 4th.—Fourth Meeting of the Science Standing Committee (13 Members present).
January 5th.—Fifth Meeting of the Art Standing Committee (13 Members present).
January 9th.—**Eleventh Meeting of the Council** (17 Members present).
January 10th.—Sixth Meeting of the Literature Standing Committee (4 Members present).
January 16th.—**Twelfth Meeting of the Council** (17 Members present).
January 24th.—Meeting of Sub-Committee of Art Standing Committee (3 Members present).
January 30th.—**Thirteenth Meeting of the Council** (16 Members present).
February 1st.—Fifth Meeting of the Science Standing Committee (11 Members present).
February 6th.—Meeting of the Publications Committee of Council (7 Members present).
February 9th.—Second Meeting of the Prizes and Studentships Committee (9 Members present).
February 10th.—Second Meeting of By-law 9 Committee of Council (3 Members present).
February 13th.—**Fourteenth Meeting of the Council** (17 Members present).
February 14th.—Seventh Meeting of the Literature Standing Committee (9 Members present).
February 16th.—Third Meeting of the Prizes and Studentships Committee (5 Members present).
——————Sixth Meeting of the Art Standing Committee (9 Members present).
February 20th.—Third Rota Committee of Council: Applications for Membership (6 Members present).
February 24th.—Third Meeting of the Finance Committee of Council (8 Members present).
February 27th.—**Fifteenth Meeting of the Council** (20 Members present).
February 28th.—Third Meeting of the Practice Standing Committee (13 Members present).
March 1st.—Sixth Meeting of the Science Standing Committee (74 Members present).
March 2nd.—Seventh Meeting of the Art Standing Committee (8 Members present).
March 6th.—**Sixteenth Meeting of the Council** (18 Members present).
March 7th.—Seventh Meeting of the Board of Examiners in Architecture (18 Members present).
March 10th.—Fourth Meeting of the Finance Committee of Council (4 Members present).
March 14th.—Eighth Meeting of the Literature Standing Committee (7 Members present).
March 13th.—**Seventeenth Meeting of the Council** (21 Members present).
March 22nd.—Seventh Meeting of the Science Standing Committee (9 Members present).
March 21st & 22nd.—Preliminary Examination in London, Manchester and Bristol to qualify for registration as *Probationer*.
March 21st, 22nd & 23rd.—Intermediate Examination in London to qualify for registration as *Student*.
March 22nd.—Eighth Meeting of the Art Standing Committee (5 Members present).
March 23rd.—Eighth Meeting of the Board of Examiners in Architecture (8 Members present).
March 27th.—**Eighteenth Meeting of the Council** (20 Members present).
March 28th.—Ninth Meeting of the Board of Examiners in Architecture (11 Members present).
March 28th.—Fourth Meeting of the Practice Standing Committee (13 Members present).
April 10th.—**Nineteenth Meeting of the Council** (12 Members present).
April 10th to 15th.—Examination in Architecture in London, Glasgow, Manchester, Leeds, Bristol and Newcastle, to qualify for candidature as *Associate*.
April 12th.—Eighth Meeting of the Science Standing Committee (9 Members present).
April 14th.—Tenth Meeting of the Board of Examiners (14 Members present).
April 15th.—Eleventh Meeting of the Board of Examiners (14 Members present).
April 17th.—**Twentieth Meeting of the Council** (18 Members present).
April 25th.—Twelfth Meeting of the Board of Examiners in Architecture (13 Members present).
April 28th.—Written and Graphic Examination (Met. Build. Act, &c.) (5 candidates).
May 1st.—**Twenty-first Meeting of the Council** (15 Members present).
May 3rd.—Ninth Meeting of the Science Standing Committee (14 Members present).
May 4th.—Ninth Meeting of the Art Standing Committee (8 Members present).
May 8th.—Fourth Rota Committee of Council: Applications for Membership (5 Members present).
May 9th.—Thirteenth Meeting of the Board of Examiners in Architecture (8 Members present).
——————Ninth Meeting of the Literature Standing Committee (9 Members present).
May 15th.—**Twenty-second Meeting of the Council** (17 Members present).
May 16th.—Fifth Meeting of the Practice Standing Committee (7 Members present).
May 26th.—Meeting of Sub-Committee of Literature Standing Committee (2 Members present).
May 29th.—Fifth Meeting of Finance Committee of Council (5 Members present).
June 5th.—**Twenty-third Meeting of the Council** (17 Members present).

Year of Office, 1893–94.

June 12th.—**First Meeting of the Council** (16 Members present).
——————First Meeting of the Alliance Committee of Council (5 Members present).
June 19th.—**Second Meeting of the Council** (21 Members present).
June 28th.—First Meeting of the Literature Standing Committee (9 Members present).
July 3rd.—**Third Meeting of the Council** (15 Members present).
July 5th.—First Meeting of the Art Standing Committee (8 Members present).
——————First Meeting of the Professional Practice Committee of Council (3 Members present).
July 7th.—Tenth Meeting of the Science Standing Committee (10 Members present).
July 11th.—Second Meeting of the Literature Standing Committee (7 Members present).
July 18th.—Sixth Meeting of the Practice Standing Committee (12 Members present).
July 24th.—First Meeting of the Board of Examiners in Architecture (11 Members present).
July 31st.—**Fourth Meeting of the Council** (11 Members present).
September 8th.—Third Meeting of the Literature Standing Committee (6 Members present).
October 2nd.—Second Meeting of the Art Standing Committee (9 Members present).

THE JOURNAL OF PROCEEDINGS OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

VOL. IX. NEW SERIES — NO. 1 — 27 OCTOBER 1892

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SESSIONAL NOTES.

The New Session.

The President, Mr. J. Macvicar Anderson, will open the Session of 1892–93, with an Address, on Monday the 7th prox. The Second General Meeting, to be held on the 21st prox., is a Business Meeting, and members having any professional questions to submit should give the usual notice in writing not later than Saturday the 5th prox. The Third General Meeting, on the 5th December, to be held under the auspices of the Science Standing Committee, will be asked to consider the sanitation of cities.

The Autumn Examinations.

The Board of Examiners in Architecture will this November have to consider the claims of a larger number of applicants for admission to the Preliminary Examination than on any previous occasion. Ninety-one applications have been received, and, with the relegated candidates, six of whom have already stated their intention to come up next month, the total number will probably exceed one hundred. Last March the number of applicants for the Preliminary did not exceed eighty, six of whom had been relegated from former examinations. Last November (1891) the number of applicants was seventy-four, including fourteen previously relegated. Twenty-eight Probationers have also applied for admission to the Intermediate, as against twenty-five who applied in March. Applications to be admitted to the Examination qualifying for candidature as Associate are not due until the 5th prox.—the Qualifying Examination not taking place until the week commencing the 28th prox.

The Institute of Sydney.

The vote of thanks to Mr. J. Horbury Hunt, for the Presidential Address delivered by him to the Institute of New South Wales, at the Annual General Meeting of that body, was proposed by the Hon. E. Combes, C.M.G., President of the Art Society. He pointed out that architecture had, in addition to giving pleasure, as in the case of painting and sculpture, another definite object—it had to be useful; it had to supply man's wants in many ways, to guard him against inclemency of wind and rain, heat and cold; to find him a proper supply of pure air and pure water, and proper systems of drainage. It was for the architect, added Mr. Combes, not only to do this, but to do it in such a manner that the structure he designed, with all these elements of utility, should be a thing of beauty. The President of the Builders' Association of New South Wales seconded the vote, which was supported by Mr. Varney Parkes. A Past President of the Sydney Institute, Mr. G. Allen Mansfeld, a Fellow of the Royal Institute of British

Architects for the last twenty years, added, on putting the motion, as follows:—"Mr. "Hunt's zeal and enthusiasm in all that pertains to the profession are known to "most of us, but it has been my privilege to see much of what I may call the inner "life of the man, the man as he exists in his studio, and I have been filled with "wonder and admiration at the vast amount of time and thought, and the in- "credible amount of labour he bestows, without fee or reward, on behalf of that "cause in which we are all so deeply concerned: the advancement of our pro- "fession in its best and truest interests. It would be hardly too much to say that to "that cause his very existence is devoted, and that without other hope of recom- "pense save that which sooner or later comes to all earnest and disinterested "workers—the respect and esteem of his fellow-men." It would be difficult to pay Mr. Hunt a better compliment.

Artistic Copyright.

The attention which has been recently directed to the question involved by the legal cession of architects' drawings to the client when the latter demands them, or when there is no prior agreement to the contrary, and the interest aroused by it, are in no way confined to London and Paris. A Paper, read by M. Van Zuylen before a Congress held this year at Amsterdam, appears in *L'Architecture* of the 15th inst. under the title of "La propriété artistique architec- "turale en Hollande," translated into French by M. Niermans. The Dutch writer refers to the conclusions arrived at by a Congress held in Madrid in 1887, to the effect that works of architecture ought to be protected as well as those of literature and the fine arts; and his own conclusions, that in Holland a law is required for the protection of artistic property as well as a law for "patents," were adopted by the Amsterdam Congress of 1892. The British Delegate's Report to the French Commission now sitting in Paris, on "Artistic Property in England," published in *L'Architecture*, and a translation of part of which appeared in the September issue of this Journal, appears in Spanish in the Madrid *Resumen Arquitectura* of the 1st inst., and again in the *Gaceta de Obras Publicas* of the 16th inst., the only discrepancy being that the British Architects have been converted by the translator into a Royal Academy instead of The Royal Institute they compose.

Education of Architects.

Readers of this Journal have now the opportunity of comparing several forms of courses for the theoretical education of architects, now in vogue not only in London, but also in Paris and in various parts of Italy; and they can further compare these with the course of studies taught in Paris by J. F. Blondel during the latter half of the eighteenth century [Vol. VIII. 20, p. 401.] In to-day's issue [p. 11] there is an article by Mr. Farrow, descriptive of the Architectural Association Curriculum, the details of which are fully set forth both in *The A. A. Brown Book*, recently issued, and in *The R.I.B.A. Kalendar*; and there is also an account, giving the time-table for each year, of the Architectural Curriculum at King's College, Strand [p. 14]. In the September issue of this Journal the courses of study for 1892–93 in the "Section d'Architecture" of the École-des-Beaux-arts of Paris were given, with details of each subject and the day and time allotted to each; and the several courses held at University College in Gower Street, by Professor T. Roger Smith, Mr. H. Stannus, Professor Karl Pearson, M.A., and Professor R. Stuart Poole, LL.D., were also described, but in less detail. The programme of the Lower and Higher courses of study, for both architects and engineers, in the Institutes at Rome, Naples, Padua, Turin, and other Italian cities, was given last February in an article headed "The Architect in Italy" [Vol. VIII. p. 192]. Here and there in the volume just completed occur articles on the means provided for architectural education, notably that by Mr. Arthur Cates on "Education in the "Provincial Centres," and that by Mr. James Gourlay on the Technical College curriculum at Glasgow, entitled a "New Teaching Centre," both of which merit attention from architects and their pupils throughout the country.

PRACTICE IN THE LAST CENTURY.

SIR W. CHAMBERS, R.A., AND OTHERS.

Traditionally, among the objects desired to be attained by the founders of the Institute was the separation of Architecture as a profession from the trade of Building. Section 1 of the "Regulations" states that the society was founded "for establishing an uniformity and respectability of practice in the profession." In the "Address" which was issued in July 1834, it is declared that, "with the object of gaining at the hands of the public a reliance on those professors who are *bonâ fide* architects, one of the principal features will be the maintenance of a high standard of professional character and honourable practice in the members." Furthermore, in 1870, Professor Donaldson said at a meeting of the Institute:—"I recollect the profession before many here—for about half a century: at that time there was a very intimate connection between architects and builders. There were then at the head of the profession two great men, viz., Mr. Smirke and Mr. Soane, whose reputation and honour were unsullied; but in too many cases the architects and builders shared in the profits. Then a very grave movement took place, and it was determined, by some young and ardent spirits, that a severance of such connection should take place to remove that scandal."

It is evident from these remarks that some practices were being carried on which were considered derogatory to the profession by the promoters of the new Institute. In my early days I had a great desire to clear up this doubtful point by ascertaining what were the differences in the modes of carrying on professional duties, for, being surrounded by relatives and friends in the profession, who as members of the Institute were acknowledged to be *bonâ fide* architects,—their designs being carried out by builders (who were then not architects),—I had no other knowledge but of "honourable practice" around me. Had my father then been alive, he, no doubt, could have solved the question easily, for, born towards the end of the last century—the son of one employed on the Royal Works, and the apprentice of a master-carpenter,—he could not have been otherwise than fully aware of the various customs and practices of both the professional men and the traders.

Since then, I was enlightened on the point by reading a specification from the office of Sir William Chambers, R.A., to which was annexed a contract by him for the erection of a mansion from his designs as architect, in one of the midland counties; this document clearly proved that at least one member of the profession, and that a highly respected member, practised the trade of Building.

But during the last few years the matter has become much clearer to me, in consequence of researches made during the compilation of several articles for the *Dictionary of Architecture*, especially those on the family of "Wyatt," and from the perusal of "Letter-books" of Sir William Chambers, from which books much useful correspondence has been already quoted in the *Journal*.* These have afforded evidence that at least some of the architects of his time did carry on the combined practice of architect and builder—that is, they made the design, entered into a contract for the erection of the edifice, received the money, and paid the tradespeople.

The "Wyatt" family appear to have followed the advice of the dying father in the old fable of the bundle of sticks, and to have assisted each other in their various walks in life, as relatives, sons, or nephews. Benjamin, of Blackbrook in Staffordshire, had seven sons, namely, Samuel, Joseph, Benjamin, James, Philip, and two others. Samuel, the third son, born 1737, became a builder, established at No. 63, Berwick Street, Soho; he designed numerous country mansions, and in 1783–86, with his brother James, the sixth son, carried on the carpentry and building speculation of the Albion Mills, at Blackfriars, which, destroyed by fire in 1791, was one of the great conflagrations of the period. He was likewise employed as "carpenter" in the erection of the chapel at Greenwich Hospital, and at Somerset House, and on other Government works, and held the appointment of master carpenter in the Board of Works. His talented son Jeffry, when about thirty years of age, became the partner of John Armstrong, a builder of Pimlico, then largely employed on works for the Government. They performed many works under James, the uncle of Jeffry, who shares the credit and sometimes the discredit of the uncle attached to some buildings. When King George IV. employed Jeffry from 1824 to carry out some restorations at Windsor Castle, ending in the almost rebuilding of that ancient edifice, he separated from the partnership with Armstrong. Matthew Cotes Wyatt, a son of James, educated as an artist, carried on business under the name of an existing firm, and also acted as art adviser to Hughes Ball and other wealthy men of the day; and later on became, as sculptor, best known for his many

* See Vol. VIII. pp. 169, 188, 231, 254, 371, and 393.

clever productions, ending, perhaps, in the great statue of the Duke of Wellington some time at Hyde Park Corner.

Another celebrated and clever architect, James Paine, executed chimneypieces for his clients and others, and also built, in 1765, the academy or exhibition rooms for the Incorporated Society of Artists, of which he was one of the presidents, and which building was converted, in 1790, into the Lyceum Theatre. The three brothers Adam were undoubtedly architects, builders, and speculative builders, as witness the Adelphi, Portland Place, and some streets and houses adjacent.

Numerous other references could probably be produced of this mixture of architecture and trade, evidently at that time not considered incompatible with the profession. That some of the principals were aware of the fact is exemplified in the following letters extracted from the "Letter-books" of Sir W. Chambers, by permission of Mr. Heron, but possibly there were others who may not have been aware of this combination:—

To M^{r} Errington. Sunday Morning, December 24th 1769.—Sir. As the Chimney pieces made for your house are so much disapproved of by you I shall not insist upon your taking them. I will keep them myself and rather sit down with the loss than give you any uneasiness. With regard to the Chimney pieces you wish to Substitute in their places I cannot give designs for them without breaking through an established rule. They are Inventions of M^{r} Payne's & he must be applyd to for them and as I have no connections with him myself I must entreat the favour of you to make Applications. He lives in Salisbury Street in the Strand & will not only furnish you with the designs but likewise with the Chimney pieces as he keeps Statuary for the purpose & Works I believe as well & upon as easy terms as any other Tradesman. . . . I am, S^{r}, &c., W. CHAMBERS.

To I. Calcraft Esq at Ingress, Kent. April 23rd, 1770.—D^{r}. Sir . . . I have made out the plans of your house according to your last directions and also made an Estimate of the Expence. I think I can build the house for you with Stables for 8 horses, 2 Coach-houses with loft & Grooms rooms over them, with Walls &c, and everything belonging thereto, for 4,300£, or if you chuse that I should build it & let it to you on a lease of 14 years, it may be afforded for 300£ a year, exclusive of Ground Rent & land Tax. I am, &c., W. C.

To Rob^{t}. Gregory Esq^{re}. (Between 19th and 22^{d} Feby, 1770.) Berners Street, Oxford Road.—Sir. I have made as near a Calculation as I can & find that the house you wish to treat with me for will Cost 2700£. when finished in a neat Manner like the other houses I have built in the Same Street any of which I can show you whenever you please, and you will by that means be better able than by any other, to see what I mean to do, & if you think any expence may be spared I will make Abatements, and if you require more to be done than I propose you must Allow for the Difference; this I believe is the fairest Way. You have the Plans by which you will see what rooms & conveniences there are on every floor. . . . I am, S^{r}., &c., W. CHAMBERS.

To Robt. Gregory Esq^{re} (date after a letter of 13th Dec., 1771).—D^{r} Sir. I have sent you herewith the policy of Insurance for your house, & also my Bill for the fine of the advanced Ground rent, Insurance, & extra work done in your house, all which I have put at the prime cost charged to me by the Tradesmen which is considerably under the usual prices. I hope you will find ev'rything right & when you have examined it I should be glad to have the Bill settled as I am now closing my accounts for that Building. What relates to the painting remaining to be done it shall be done in the Spring, or whenever you please, in the meantime if you think proper you may retain a sum for the due performance of that part. I am, D^{r} Sir, &c. W. CHAMBERS.

The next letter affords the interesting information of the addition of an upper storey to Marlborough House, designed by Sir C. Wren. It would appear that the Duke had employed an architect of the name of Leadbetter, who perhaps dying at that time (the date of his death is not known), the Duke had recourse to Chambers, who thus may be presumed to have added the attic storey.

To His Grace the Duke of Marlborough. Follows a letter dated April 23, 1771.—I have made an estimate of the Intended attick at Marlborough house according to Mr. Leadbetter's plan and find it will amount Including My Commission of 5 p C^{t} to 4467£ which exceeds what I expected it would come to Considerably but the Space to be covered is very large the building is lofty & the Work will be attended with Several Difficultys. If Your Grace resolves to have it done I am ready to undertake the whole for the Above mentioned Sum or I will do it by measure and Value after it is done or do the Whole for Your Grace's own Acc^{t} only Charging my Commission as usual which last I should recommend as the Cheapest for as it is impossible to make a very exact Calculation in a Work of this kind I have kept the Estimate rather full so that I think Your Grace would save by doing it Your self. I think the lead & other old materials of the roof will fetch about 600£s exclusive of the balustrade which Your Grace might Employ in some Building or if any one wanted such a thing—there is above 400 f^{t} running of it which at a very moderate Computation is worth 15^{s} P^{r} ft I have not however measured it but only Speak of this last Article by Guess & I believe within Compass. I have the Honor to be, &c., W. CHAMBERS.

The three following letters, marked (1) (2) (3), are probably to the same purport, and as they relate in a great measure to "custom" in the profession, they cannot be otherwise than of value as coming from the pen of Sir W. Chambers.

(1) To the Right Hon^ble the Earl of Thanet at Hothfield, near Maidstone, Kent—July 15. 1773. My Lord . . . I have lately had some very Unpleasant disputes w^th Lord Milton relating to my Bills, he tells me he has mentioned them to your Lordship & advised you to make a very sure Bargain before You have any dealings with me. As I have charged his Lordship nothing but what is customary nor anything that was not mentioned to him before he employ'd me the step seems somewhat extraordinary. I did not indeed hope to settle a bill w^th Lord Milton of near 5 Years standing without a little Disputation but to find myself represented to your Lordship & in all Companies as an imposing extravagant fellow is what I did not expect & certainly do not deserve. As yet I have no demand upon your Lordship but for the time of my Journey into Kent w^h is a Trifle & for What is to come if agreeable to your Lordship it will be exceedingly so to me to make a sure Bargain. I expect no other Conditions than such as are usual but after having found almost ev'ry article of these disputed there can no longer be any reliance on Custom, a previous agreement will effectually prevent Disputes. I have the Honor to be, &c &c., W. CHAMBERS.

(2) July 26^th 1773. My Lord. . . . . If your Lordship thinks proper to contract w^th me for the new building I will undertake it upon the most reasonable Terms that good work can be done for & use as many of the old Materials as are fit for use in the Construction for w^h I shall be ready to allow as much as new materials of the same kind would cost me upon the Spot the remainder though of no Value to me were I to purchase them will be exceedingly usefull to Your Lordship in repairing farm houses or eaven in building out houses or such like works. Your Lordship seems to think a smaller Plan than that I drew when at Hothfield would answer your purpose. I cannot be of the same opinion however it may be as small as Your Lordship pleases I shall have no objection to undertake it on that account nor charge anything more than the usual Price for my own trouble meaning in these Respects to do as I have constantly done since my 1^st arrival in England near 20 Years ago but I must observe to Your Lordship that a small building cannot be properly executed without the same inspection as a large one that I must equally keep a Clerk of the works upon the spot for a Trifle as for a Considerable work & make myself the same number of Journeys all w^h upon a small sum will proportionably increase the Expence considerably. A country contractor who living near the place will be liable to no such Expences may therefore execute your Lordships plans on lower terms than I can pretend to do but whether or not he will execute them to Your Lordships satisfaction is what I cannot determine, in general Country builders plan ill and execute still worse. If your Lordship continues in the intention of employing me I shall be at leisure to wait upon you at Hothfield on the 20 of August but not before having by pre engagement several Journeys to make till that time. W.C.

Besides this last letter there is another one of the same date to his Lordship, as follows (which of the two letters was sent to him is not stated):—

To the Earl of Thanet, Hothfield, Kent, July 26^th, 1773.—My Lord. I have no objection to the proposed contracts for the new building; and will agree upon as low terms as good work will allow; what old materials are fit for use shall be employed in the new works, and accounted for to your Lordship at the rate of new: but I can by no means think of purchasing a very large old house in order to build a small new one; as the greatest part of the old materials would remain unemployed; and far from being of any value to me, would create an expense in removing them out of your Lordships way . . . W. CHAMBERS.

Hothfield, July 31.—Sir. As I find by your letter you don't approve of my terms, I think it will be the best way for both of us to remain where we are, and not to proceed any farther. You will be so good to let me know your demands upon me, and if you will let me know when you are in town I will desire a friend of mine to remit the money to you. I am, sir, your obedient humble Servant, THANET.

(3) August 12, 1773. My Lord. I am sorry it is not prudent for me to accept of Your works in the manner you propose, whoever doth must either take improper advantages of your Lordship or run great risques themselves neither of which I am inclined to do. My demand upon your Lordship is 12 Guineas for my Journey to Hothfield, I am generally in Town all the latter part of the Week & will deliver what Dessigns I have of Your Lordships to the Gentleman who is to call upon me by your Lordships Appointment. . . . W. CHAMBERS.

To Thomas Scrope Esq, Member for Lincoln. —Dear Sir . . . I am sorry it is not now in my power to undertake any business of the Building kind. I have long wished to leave it off entirely, but in vain, and this year I have insensibly been drawn into so much, of one sort or other, that I know not how or where to turn, tout est en desordre et Je ne sais ou donner de la tête. There is a man near you whose head is in much better order, one Carr, dwelling at York, and once Lord Mayor there. He has built for Mr. Lascelles and many other worthy gentlemen of the North, and would I think shine at Coleby. Some business will call me into Yorkshire about the time of York races; I shall take a day or two of the sport, and hope to meet you there, when we will talk the matter over. I will endeavour to put you in a way, though I can undertake nothing myself. I am, &c. &c. (no date or signature).

Coleby, near Lincoln. July 29^th, 1774.—Dear Sir. I beg you will not fail if possible to make Coleby in your way to York races, 'tis your direct road; I will go with you. I stay here till then. Tho' I say it, you will see a fine place. We are brother genius's in the Architectonical way; we viewed old Rome together; and I remember your doing me the honour to ask my opinion on different

subjects. Mr. Lascelles may employ one *Carr* if he pleases; no Carr for me; in short you must see Colby. . . . This place must not be cobled (*sic*), it must be either you or Wyatt; but I had much rather have an old friend and acquaintance. Pray send me a sketch for my gateway and for the epargne. . . . I beg we may meet and have some funn here; 'tis the very seat of the Gothick Empire. S^{r} Cecil Wray, the Solomon of these parts, I much fear is doing all he can to pull down the finest Roman antiquity in the Island, a Roman Arch belonging to the old Roman Station Lindum, near Lincoln, and all this to break a pieces (*sic*) to mend the turnpike roads. If he carries his point, I'll hand him down to posterity with Attila, Alaric, &c., in a strong English or Latin inscription on some building at Colby, on the old Roman road straight from Sandwich across the Humber through my Lordship. My compliments to your family. I am, Sincerely Yours. THO. SCROPE.

The foregoing correspondence affords sufficient evidence that the architect of the last century and the early part of the present century often became responsible for carrying his designs into execution. He had not necessarily a workshop; his estimates were founded on those sent him from the master tradesmen in whom he had confidence. Chambers carefully stated his own charge of 5 per cent. as architect, in addition to the amount for the works. A question arising from the consideration of the above valuable matter is, whether, if the architect should again have recourse to the combination of profession and trade, he would be entitled to retain his drawings. Under such an arrangement he supplies the work of art—that is, the building itself. So does the furniture dealer, stained-glass manufacturer, artist-painter, and other tradespeople, who are evidently entitled to retain their drawings, in the opinion of lawyers who do not yet see that the architect only supplies drawings and specifications for the clear apprehension of the various tradesmen as to his own and his employer's intentions for the one and sole work; and not for repetition when claimed by the employer, or for the gift or sale by the latter to a friend or relative. WYATT PAPWORTH.

MR. J. HORBURY HUNT'S ADDRESS.

THE INSTITUTE OF NEW SOUTH WALES.

Gentlemen, Visitors, Fellows, and Associates,—It is nearly two years since I last had the pleasure of meeting you for the purpose for which we are now assembled. The first meeting of your last Session was allowed to pass quietly by with only a few words of congratulation spoken in recognition of our continued and steady success, because at that period, from circumstances over which we had no control, several addresses had to be made from this chair, consequently I did not feel disposed to take upon myself work which could be safely dispensed with, preferring to accept the charge of violating an old professional custom. We have surmounted our difficulties and secured our position, and it becomes my duty to open this Session in obedience to that old custom; I have therefore the honour of delivering the Annual Presidential Address,* asking for the present your kind attention, while trusting to your future meditation on the subject thereof, namely—our profession. . . .

There is a movement on foot in the other colonies (under the influence of a like movement in the mother country) to seek legislative measures to protect our profession. I think this the wrong course to follow. Perhaps the more scientific element of our profession might be assisted by wise legislation, but certainly not for the profession as a united one. I fear the tendency will be to develop the muscular part of our profession in the civil engineer, while the effeminate part will be taken in hand by the gentleman-artist, leaving the quantity-surveyor to stand by and reap the monetary reward arising out of the disintegration which would be fostered by legislative measures. Have we not (as I have pointed out in a previous address) the power within ourselves to do all that is required, aside from any Act of Parliament, namely, by good example to teach the public the difference in value to them between a well-trained and skilful architect and any ignorant, presumptuous men. As a professional body we should be much more diligent, and seek to build up in the public mind respect for and confidence in our craft. Are we not disposed to laziness and indifference to the interests of our profession? Do we not lack moral courage and firm fibre in the conduct of our business by not firmly and respectfully contending for the observance of the true principles of our calling? Do we not yield too quickly our better judgment through fear of losing a client, or causing a little temporary displeasure, and so sacrifice the ultimate and lasting gratitude of a sensible man, who perchance by firm and timely remonstrance would have been prevented from carrying out his own crude ideas? How many shrewd business men can tax us with yielding, to their directions, things they at first but imperfectly understood, or perhaps in the heat and excitement of a busy life could not spare that time so necessary for the proper study of the many hidden and complicated details of the art of building, and which his architect left too freely to his untrained judgment, mistaking his client's shrewdness in his own business as evidence of his ability to direct matters architectural. Many a terrible and permanent blot on God's creation can be traced to the joint labours, or, more correctly speaking, disjointed labours of client and architect, which in many cases the client becomes educated enough to look upon with horror and disgust, while daily experience prompts him to curse his architect for

* Read at the Annual Meeting of the Institute of New South Wales held in Sydney, on Wednesday, 31st August 1892.

the latter's supineness. Depend on it *we* shall never have that effective and positive influence over the public mind so necessary for the proper appreciation of our profession, if we do not set to work with energy, and show what we mean, and then by good example and earnest endeavour make the profession what its well-wishers feel it should be. Once accomplish this, and we can then with much more grace remonstrate with those who violate our laws, or set on one side the canons of Fine Art, or neglect to help to sustain the standard we have set up. In the words of Sir Wm. Tite, "we must "always bear in mind that we shall not be able "to influence public opinion unless we are really "and truly of our own times; and are true ex- "ponents of the spirit and feelings of our age in "all that is good and pure, without servile defer- "ence to fashion, or yielding in any way the rights "of our own consciences to temporary popular "fancies or errors." To the young men of our profession I will say, prepare yourselves for the immediate future before you, for if by wise government and by God's blessing we have high-spirited true and loyal men conducting our national affairs, this young country will speedily become one of much importance. . . .

The time has now come, as provided for in our new constitution, to institute examination for admittance to Associateship. We cannot for some time aspire to the perfect methods existing in the parent Institute for their conduct, the importance of which was briefly yet well put by Professor Donaldson. "These examinations [The Volun- "tary] are useful as affording the young man "a true index of his powers and of his weakness. "If he fail, he knows in what department he must "work on to acquire the knowledge in which he "is deficient . . . and learns that positive well- "grounded methodical knowledge is superior to "dreamy idealities of an unstable mind." In a former address I pointed out that our University Senate, composed, as it is too well known, of doctors and lawyers, had taken in hand, unaided, unadvised by our profession,—with their own scant knowledge and experience of it,—to make provision for teaching architecture, lectures on the subject having already been delivered. I may say that Mr. Mansfield and myself not long since saw some of the senators, and pointed out that we senior and experienced men in the profession ought to have some voice in that which was to us of much importance. I also wrote to the Pennsylvania University on the subject of architectural training there. The letter you have just heard read is from Professor Warren P. Laird, in answer to one of mine, and received since preparing this address. I will, however, recite one or two chapters from the preamble of their course of instruction in the School of Architecture, University of Pennyslvania, Philadelphia:—

Architecture, both as an art and a profession, has awakened [in the U.S.A.] considerable interest during the past generation. Owing to various causes, a general desire for better architecture has arisen, the profession has been stimulated, and the public taste and judgment are greatly improved. Extraordinary as the industrial and commercial progress of the nation has been during the past twenty years, the advance in architecture has been even more remarkable. This is largely the result of an educational movement in the profession that has shown itself in various ways. Foreign travel and study have been encouraged by the demand for better work, and by the establishment of numerous travelling scholarships. A large number of young architects have in consequence gone abroad to travel and to study in the best schools of Europe. As a result our best architects are scholarly men, trained in our schools and those of Europe, are familiarised by travel with all that is best in architecture. They are men of education, of cultivated taste, and of masterly ability in the art. With such leaders the profession is becoming recognised as a distinguished one, and a steadily increasing number of young men are entering it in preference to the other professions. School training is an absolute necessity to those who would enter the profession of architecture; office training, no matter with what intelligence and industry it may be pursued, is not sufficient. The student in architecture must have a broader preparation than it is possible for him to receive in the routine of office work alone. That the routine of office work as a draughtsman must be a part of the training of every architect goes without saying, but it is equally true that the man who has no further preparation than this is seldom able to make the most of his talents. The highest professional standard requires that the architect should be an educated man, that he should have a knowledge of the æsthetic and scientific principles upon which his art is based, in addition to the technical knowledge to be gained only in actual practice. He must know the physical properties of building materials and the scientific principles upon which they are put together; he must have an acquaintance with all that is best in his art, through a knowledge of its history and of its traditional forms; for it is only by the combination of the scientific and æsthetic factors of his art that the true architect can be equipped. In our schools the subject of architecture is taught historically, æsthetically, and scientifically, in order that the student may be able the better to cope with the problems of his career, and solve them to the credit of himself and his profession. The school of architecture provides this training, as it offers instruction in the various phases of architectural study, æsthethic, historic, constructional, and practical. It further provides a course of liberal study that tends to broaden and cultivate the student. The aim is to cultivate in its men a thoughtful and earnest method of dealing with architectural problems. While inculcating this habit of study, it seeks to familiarise the student with that which is good in architectural form and true in principle, to the end that he may be able to take up the problems of actual practice and solve them in a direct, simple, and scholarly manner. In thus training its students it best serves their future, for the strongest architect is he who, appreciating the good in his art, knows also how to produce it. The school educates architects, not draughtsmen; its aim is not to produce architects' assistants, but so to educate its men that they may become architects of high grade. The course of study is thorough and comprehensive. . . . It may be considered on three lines—liberal, scientific, and æsthetic; the first to broaden and cultivate the student, the second to ground him in the principles of good architectural construction, and the third to teach him the art of architecture.

We here have the example of our American cousins—how they have taken in hand to properly train their young men for the profession of architecture in two well-founded Institutions, namely, the University of Pennsylvania, Philadelphia, and at Columbia College, New York. In their professional life, as well as their national, they have the one motto, "Union is Strength," while we in this country indulge in a sort of pettifogging, jealous inactivity. To bring about a more active, a better and a higher state of things, I earnestly entreat you, my senior colleagues of to-day, to make yourselves conversant with all these essential preparatory works, and awake to the demands resting upon us; and let us perform our part in such a manner as shall secure the blessing of those who are to follow us—not only the blessing of our future practitioners, but also those of the sister arts, for has it not been put as an incontrovertible fact—"That before either of the "decorative arts of Sculpture and Painting can "flourish in a country, Architecture must be pre-"viously cultivated and properly understood, for "their well-being depends upon each other like "the voussoir and key-stone of an arch—and they "must stand or fall together"? . . .

There is not, as there should be, with our rising colonial youths, that true, earnest determination to prosecute with diligence the study of our profession, and master its many complex and difficult problems. Let us admit that our youths have not the advantages of English and American young men; but there is with us a tendency to an improper and undue haste to become practitioners—masters too early in life. A successful and distinguished after-life depends on combining knowledge and experience; the former may be obtained early in life, not so the latter; depend on it, talent and skill will come to the front in good season. Is there not a growing tendency to treat the responsible duties of our profession far too lightly? Courting its bright and fascinating features while seeking to live too much in a dilettante atmosphere, in preference to one tending to stimulate stern, practical reality. . . .

Since writing the above I have come across the recent remarks of one we are all prepared to respect. . . . He says that "the tendency of "recent years is to render the pursuit of archi-"tecture more and more effeminate, to open the "portals of the great art, sole and indivisible, "which Michelangelo practised, to those hosts of "charming young ladies who adorn our art "schools, the force of whose example, though it "may refine the manners, seems to emasculate "the intellect of the young æsthetic male." Those of you who are approaching manhood, and are desirous of being true and loyal to our craft, prepare yourselves for the future, yet take heed of the past, or in the words of the writer just quoted, "Although the moderns may more than ever be "compelled to study the past, the future is to the "man, no matter what his profession may be, who "can face the facts and read the problems of the "present." To encourage the public to place the degree of confidence in you which is so necessary to enable you to hold that dignified position your profession justifies you in claiming to hold, you must show that you are master of the profession you aspire to be a member of. Those effeminate features referred to must be looked upon as prejudicial to your character as an architect, while they are no part of the character of a true business gentleman. They are, however, certainly weak spots in your professional armour, too well known and visible at a glance to the keen eye of these expert specialists. To meet and effectually dispose of this class of pretenders, the coming architect must be an able and a strong-minded man—not the effeminate or gentleman-artist—nonsense must be an unknown quantity with him. He must have full confidence in his own strength and skill to enable him to compel these intermeddlers of the practice of our profession to relinquish their interference, and fall back into their proper place; while making one and all connected with the practice of our profession feel that he, the architect, or as he was styled prior to the fifteenth century, "Master of Works," is able, as of old, to direct and control all associated with him, and that he will aim to do so, as becomes a master, with firm consideration and kindness, treating all as co-workers in accomplishing the great objects of our profession.

The interest I have for the welfare of our profession, and the part to be acted therein by the rising young men growing up with us, justifies me in expressing a desire for the future welfare of the Sydney Architectural Association. On no account would I place one square inch of a damp blanket upon the praiseworthy endeavours of those who are conducting the work of that junior body under what at best must be very trying conditions to those engaged in their regular practice; and no doubt this will go on for a long time yet before we wake up and bring about a more effective method, such as we know now exists in the U.S.A. It may be many years before such advance will be made here; we must therefore deal with our present existence. I will venture to point out, with all kindness of feeling on my own part, that while it becomes the duty of this Institute to keep in view the present object of the Association, to encourage and assist its progress in every way possible, as the stepping-stone to a duly-appointed School of Architecture, there is, I think, some apparent danger of the true element of an architectural association being supplanted by the desire of enrolling many craftsmen having other objects than those of the Association, even granting that in some respects their labours are of an auxiliary character. . . . I further venture to point out that it verges on the unseemly to introduce these somewhat Christy-Minstrel entertainments termed smoke concerts as an adjunct to an architectural association, with the many incipient evils to which the youths of these colonies are somewhat prone. Are our youths wanting in provision for more healthy exercise and entertainment, when requiring refreshment after study? Or are their studies made so dull and uninteresting as to require this class of evening entertainment to

keep the integral parts of this Association together? If so, then the preliminary studies of architecture to-day in Sydney are not so fascinating as of yore. I have spoken frankly, because I feel seriously, and I trust my words may be taken in a kindly spirit by the junior branch of the profession. I speak for their future welfare, as I feel it to be of the greatest importance to the future architecture of this country that our students of to-day be aroused to seriously consider the important part our profession should play in our country; for in their hands we place the future, and trust that in due time they will take their proper place, lending their aid, and ably so, in fashioning and moulding the character of this young country into its place among the foremost modern nations.

Young men will be wise to give attention to the written or spoken words of prominent men in the profession. Rondelet wrote thus:—"Most modern "architects are rather decorators than construc- "tors, aiming like the painter and sculptor chiefly "to please, indulging in captivating but often im- "practicable designs induced by their association "with the imaginative arts of painting and sculp- "ture;" while Whichcord spoke thus:—"Has not "the tendency in England of late years been to "unduly exalt the art at the expense of the science "of architecture; so that architectural science is "gradually becoming the specialty of men who "are not and do not pretend to be architects." M. César Daly, while acknowledging the honour recently conferred upon him by the Royal Institute of British Architects, said:—"Architecture is "the art of composing and executing buildings "and all their surroundings, streets, public places, "gardens, parks, so as to answer to the wants, the "feelings, the science, and the technical knowledge "of the society in which the architect is at work. "In the world in general you see that one man "takes to industry or to commerce, another to "science, a third to art, and so forth; the modes of "activity vary, but nature has given to every man "a head, a heart, and hands, that is to say, "thought, feeling and industry; and as the grandeur "of architecture is the faithful reflection of human "nature and human society, let us not mutilate "architecture more than we would mutilate "nature." Here are the words of one not an architect, namely, Dr. Tatham:—"Fine drawing, "fine shading are eye-traps, to flatter and deceive "too frequently, and successfully employed by "modern architects, to the loss and disappoint- "ment of their employers, for the elevation exhi- "bited for show will generally be found deceitful "when the edifice is built. The true architect "possessed of genius will see the full effect of a "projected edifice before he puts pen to paper or "a line be drawn. . . . Building is a most ex- "pensive thing, and he who intends to build can "hardly buy an able architect at too high a price." In this way, my young friends, I could go to any length in bringing before you other men's minds in support of my views, and in trying to satisfy my desire to inspire you with zeal for our profession's work. . . . Are not the words of Mr. Waterhouse deserving of most serious consideration by our students, and should we not impress their full meaning on their minds? These are his words: "The dignity, the greatness of our profession "arises from its responsibilities, and in this it "differs from all other artistic vocations. The "painter has only to please himself in the subject, "the inception, and execution of his work. If "when finished it is thoroughly successful work, "in all likelihood it will find a purchaser. The "architect, on the other hand, can find nothing to "do, can give no satisfactory proof of his capacity "until somebody comes to him who is willing to "trust him. Consider what that trust is: not "only is he entrusted with the expenditure of "large sums of money, but of money expended in "such a way as to affect the comfort, the happi- "ness, often the whole tone of the existence of "those who employ him."

The pleasurable, the creditable, and I might truly say the profitable, practice of our profession as we have to practise it at the present time, has two deterring influences acting at times directly, but more often indirectly, which are more dangerous from their insidiousness. First we have this wretched degrading influence of present-day "trades-unionism" over our workmen. Second, the effeminate gentleman-artist element. While one destroys our reliance in our workmen, the other cuts up the reliance of the general public in our profession. The public show, in far too many cases, preference to place their interests and reliance directly in the hands of some tradesman well known for his integrity, who in turn is dominated in the execution of his work by the influence of "trades-unionism," all eventually recoiling on the welfare of our profession. . . . These elements of dilettanteism and trades-unionism increase the indifference, and want of mutual confidence, between the workman and the master of the works. I fear there are many rising young architects who appear so deeply and profoundly engaged with the art element, and small features of architecture, as to have no time to interest themselves with the doings of their workmen. I say their workmen, in the full meaning of that, to us, important word. How many times, when the workmen seek from this type of man assistance and information on some important point, are they told, "Oh, do it in the "usual way, do not trouble me with such common- "place matters;" while, on the other hand, the modern trades-union workman is so absorbed in trying to solve the important problem of the times, namely, "how not to do it," that he has no time to devote to the study of his craft. What is the result of all this to our profession? Why, in addition to the meddling of the expert-specialists, and work being placed in the hands of respectable tradesmen independent of us, we have that most powerful and respected (and deservedly so) profession of Civil Engineering taking advantage of our inattention to the constructive part of our profession. Then, with that force of character which is the mainspring in the life of a civil engineer, he makes himself more independent than we do of the unreliable character of present

manual labour, by the introduction of machinery, which not only lends accuracy to his work, but certainty of completion; while with us much of the life and bone is taken out of our work by machinery. The ideal workman of the civil engineer and the ideal workman of the architect have not, at present, things in common as would be the case if our profession took more heed of scientific construction, and encouraged our men therein, making the civil engineer yield more to the dictation of architecture without losing effect in any of his great scientific achievements. The subject of the modern workman and his position with our profession is one of grave importance to us as architects, and one which we shall be forced ere long to take heed of, as much as educating our own men; for without able and skilled workmen where shall we be? . . . I fear that some of our intelligent workmen may retort, and say that we, as a profession, are much to blame for the present state of things, as we do not give heed to, or encourage those upon whom we are solely dependent for the execution of our designs. On the workmen we have to depend for fashioning the rough and raw material to such shapes, that when brought into their several places, soundness of construction and beauty of design are then—and only then—made manifest. I think we might have to confess we do not give that cheering word or flash of countenance indicating pleasure and satisfaction so often as we might do (even under the present state of things), by way of encouraging those who labour for and with us. We leave our workmen far too much to the mercy and influence of those who have but a very temporary interest in the result of their craftsmanship. I will here use the words of Blondel. Changing his expression "builder" for "workman," then they read:—"There are three leading points in every fine "building—its execution, its magnificence, its "conception. The glory of the first is due to the "workman, of the second to the owner, of the "third to the architect." I am not unmindful that in our profession much careful study and skilful management of labour and materials can be pointed to with just pride; and further, that our profession has made great strides along the smooth and pleasant path of art and up the rugged way of science. While the true masterful architect must be a man of science, he must observe and obey the old canons of architectural taste; and to do this he must have the feelings and aspirations of an artist. . . . J. Horbury Hunt.

Mr. Middleton's Lectures.—A Course of ten Lectures on House Sanitation is being delivered by Mr. G. A. T. Middleton, A.R.I.B.A., on Fridays, at 7 p.m., at the St. James's Hall, Piccadilly, W. The first lecture was given on the 7th inst., and one is delivered every week, except Friday the 25th prox., until the 16th December. Ten Lectures on Architectural History and Ornament are also given on Mondays, at 7 p.m., illustrated by a series of limelight views. The first lecture took place on the 3rd inst., and the last is announced for the 12th December.

THE GARRICK CLUB.

Spring Gardens, S.W., 29th Sept. 1892.

Gentlemen,—In Mr. Montague Williams's *Leaves from a Life* (p. 174, 2nd ed.) is the following passage:—"In 1873 I became a member of "the Garrick Club, where I had been a frequent "visitor previously. . . . . The new premises "were designed by one of the members, Nelson, "and a curious circumstance was, that when the "structure was nearly completed it was discovered "that the architect had forgotten all about the "kitchens."

There were two architects of the name of Nelson living at that time—Mr. Thos. Marsh Nelson, the architect of the Junior United Service Club, and Mr. C. C. Nelson; but perhaps Mr. Williams will be surprised to hear that neither of these was the architect of the Garrick Club, which was designed by the late Mr. F. Marrable, as may be ascertained by reference to Mr. H. B. Wheatley's *London Past and Present*. The tale about the kitchens having been forgotten is evidently an apocryphal one. There is a similar story with regard to the gallery staircase at the Lyceum Theatre, which was rebuilt by Samuel Beazley in 1831–4, after its destruction by fire on the 16th February 1830, and there is about as much truth in this legend as there is in that relating to the kitchens at the Garrick Club. It is not too much to say that the omission of a staircase to the gallery of a theatre or of kitchens to a club-house are impossibilities, and could not have occurred. The public, however, believe in these absurdities, and no amount of contradiction will convince them of their untruth.—I am, &c., John Hebb.

The Secretaries R.I.B.A.

*** Few metropolitan architects old enough to remember the construction of Garrick Street can have forgotten that the late Mr. Marrable, once Superintending Architect to the defunct Metropolitan Board of Works, was the architect of the Garrick Club.

The Polytechnic Building Classes.—The Course of Instruction in Building Construction, consisting of weekly lectures and drawing lessons, is now being given at the Polytechnic Institute, Regent Street, W., under the direction of Mr. Charles F. Mitchell. Special Lectures are also delivered on Sanitary Engineering by Messrs. J. W. Clarke and G. Taylor; Brickwork and Masonry by Mr. H. W. Richards; and on Chemistry of Building Materials by Mr. R. Avey Ward. The terms for the Session, which commenced on the 3rd inst. and concludes on May 6th, are very moderate. The Course is divided into three stages: Elementary, Advanced, and Honours. The lectures in the Elementary stage are delivered on Mondays, 7 to 8 p.m., Tuesdays, 8 to 9 p.m., Thursdays, 7 to 8 p.m., and Fridays, 8 to 9 p.m.; Advanced stage, Mondays, 8 to 9 p.m., Tuesdays, 7 to 8 p.m., and Wednesdays, 6 to 7 p.m.; Honours stage, Mondays, 8 to 9 p.m., Tuesdays, 7 to 8 p.m., and Wednesdays, 7 to 8 p.m. Monthly visits to works and places of architectural interest take place on Saturdays. Courses of instruction in Carpentry and Joinery are also held at the Polytechnic.

No. 9, Conduit Street, Hanover Square, London, W.

THE ARCHITECTURAL ASSOCIATION CURRICULUM. The Curriculum of Study which was drawn up by the Committee of the Architectural Association, and put forward to meet the universally admitted deficiencies in the opportunity for obtaining instruction, from which the young architect had hitherto suffered, has had the test of a year's actual work; and the fact that *The Brown Book* * recently issued for the work of the present Session contains substantially the same curriculum as its immediate predecessor shows, at any rate in the Committee's opinion, that the course of education now provided by the Association is substantially that most suited to the majority of students.

Looking into *The Brown Book* from what may be called the Institute point of view, one is interested to notice how the architectural student can obtain at the Association the instruction which he requires to enable him to pass the Examinations of the Institute. This *Brown Book* contains a full list of the lectures, classes, and studio work embraced in the Curriculum.

As is now well known to all members of the Institute, the year 1893 will be the last in which "The Examination to qualify for candidature as Associate" will be held, and after the end of next year it will be necessary for all young candidates, who wish to become Associates of the Institute, to pass a graduated series of three examinations instead of, as hitherto, one single examination.

The institution of this series of Progressive Examinations will, without doubt, materially lessen the temptation to "cramming" which the present system has been found to offer; and it is satisfactory to notice that the course of education now provided at the Association also tends in the same direction. Thoroughness of teaching and training, with every inducement to the student to take sufficient time for his proper education as an architect, is now the guiding principle of the methodical and systematic course of study indicated in the Curriculum.

Many members of the Institute may be desirous of knowing what course a pupil under their care should pursue at the Association in order to fit himself for the Progressive Examinations. The Preliminary Examination, to qualify for registration as a Probationer of the Royal Institute, deals entirely with matters which every young man, who aspires to be an architect, should have studied, before leaving school, with sufficient thoroughness to enable him to pass the Examination with ease. The subjects of this Examination are, therefore, not touched by the Association, as that body assumes that those who join its ranks have already received the ordinary education of an English gentleman, and have commenced the definite pursuit of architecture in the office of a regular practitioner.

* To be obtained at the Office of the Architectural Association, 56, Great Marlborough Street, W.

It is clear that the Association has no intention of superseding the system of pupilage which is now universal in the profession, as it only admits members of its own body to participation in the educational advantages it offers; and, except in very rare instances, no one is admitted to its ranks unless he is already engaged in an architect's office, and expresses his intention of practising as an architect.

The first step, therefore, that a young man must take after passing the Preliminary Examination is to become a member of the Association, which is a perfectly easy matter if he be properly qualified. He can then proceed with his studies for the Intermediate Examination of the Institute, by attending the lectures and classes in Division I., the whole of which are advantageous for his special purpose, and cover the items I., II., V., VI., VII., and VIII. in the Intermediate programme. He should also avail himself of the permission given to take up one of the "extra subjects" which he requires—either Plane and Solid Geometry, or Mensuration and Land Surveying.

The advisability of joining the Studio will depend, for our candidate, on whether his principal can spare time to superintend the preparation of the drawings which are required. If not, it is advisable for the pupil to take up the Studio work, and especially so if he desire to obtain training in more artistic draughtsmanship than can be seen in many offices.

In Division II. of the Association Curriculum the only subject needed for the Intermediate Examination is the course of lectures on English Architecture. It would, therefore, be desirable for the candidate to take this as a single subject, and devote more of his attention to the Studio work.

After passing the Intermediate Examination the Student of the Royal Institute would do well to devote three years, instead of the minimum two allowed by the regulations, to his preparation for the Final Examination, and, in the first of those three years, he should take up the remaining subjects in Division II., and then, in subsequent years, Divisions III. and IV. exactly as they stand.

In his preparation for the Final Examination it is highly desirable that the candidate should spend at least two sessions in the Studio, or, at any rate, should work for the "Criticism Meetings."

These "Criticism Meetings" take the place filled by the Classes of Design in the earlier days of the Association, and are held monthly in the Studio. It is quite open to any member of the Association, whether taking the full Studio course or not, to attend these meetings and bring his drawings for the criticism of the special visitors, amongst whom are numbered several members of the Institute Council. The "Criticism Meetings," therefore, combine for the members of the Association many of the advantages of the former Classes of Design and of the Royal Academy School; they will prove highly valuable in the study of design, to which a candidate for the Final Examination must necessarily give a considerable amount of attention.

The high standard at which the Association teaching now aims ensures that any young man who works consistently and thoroughly through its classes and Studio will have not the slightest need to fear the ordeal of the Institute Examinations. These Examinations obviously, as all qualifying tests must do, set up the minimum of attainments in architectural knowledge which a member of the Institute should possess. The course of instruction at the Association goes beyond this, and endeavours to teach the young architect as much as it is possible for him to be taught; though, at the same time, leaving him entirely unfettered in that all-important self-education, without which he can never be an artist.

No one who has upon his shoulders the responsibility of the education of a young architect need fear that the course of instruction at the Association is in any sense academical. The underlying principle throughout the Association work is education, in the strictest meaning of the word, the drawing out and development of the diverse

faculties which lie dormant in the embryo architect. The constant aim of all Association endeavours is to develop originality and individuality in its members; and the fact that its government, and,—to a large extent, its actual tuition,—is in the hands of comparatively young men, is a complete safeguard against any tendency to rigidity or formality either in its methods or in its teaching.

It has been noted above that, in order to participate in the advantages of the Lectures, Classes, and Studio, it is imperative that an architectural student should become a member of the Association. In this the policy of the Association is, beyond doubt, a wise one, for the educational advantages do not end with the Class-room and the Studio. The Library, which is by far the best architectural lending library in the kingdom,—as the Institute Library is the best reference library,—the ordinary meetings, the visits to old buildings and new works in progress, are some of the other benefits which accrue to a member of the Architectural Association, and which all have great educational value.

To become a member of the Association, and to work through its complete Course, is then not only an adequate preparation for admission to the Institute, but is also as good a training for an architect as a young man can attain in England to supplement his experience in an office. Nor need a student fear that to obtain this education it will be necessary to devote all his evening hours to work. If he wish to get through the Association Curriculum in the short period of *four years*, he can do so by devoting *four evenings a week for eight months of the year* to the work. One of these evenings would be taken up by attendance at Lecture or Class, one by preparation for the same; and two evenings would be spent in the Studio. If the student wish to take things more easily, his best plan,—having regard, in some degree, to financial considerations,—would be to take up the Lectures and Classes of any one Division in one session, and the Studio work of the same Division in the following session. In this way two evenings only each week would be devoted to study, which is little enough for any young man who has serious hopes of becoming a qualified and well-educated architect.

A subject which has been repeatedly mooted in the Association councils has been the establishment of day classes for the benefit, particularly, of architects' pupils, so that those architects who, in the midst of their everyday practice, are too busy to give systematic instruction to their pupils in matters outside ordinary office-work, might, by allowing their pupils to attend these day classes, more adequately discharge the obligations which, morally, are incurred by the principal who admits a pupil into his office. At present the Association has not received such a mandate from the profession at large, or from the Institute, as its representative, as would justify the establishment of day classes, but when the desire on the part of practising architects for such day classes becomes evident, there need be no fear but that the Association will be ready to take another step forward and establish such classes.

It is, certainly, a discreditable anomaly that the pupils of an architect, who are supposed to be placed in his office to learn, should be obliged to work overtime, and obtain the instruction they require outside both the office hours and the office door.

Under such conditions it is small wonder that the profession of an architect does not take equal rank in the estimation of the public with the other, so-called, learned professions. If the public realised that preparation for the calling of an architect meant a considerable amount of serious, downright hard study, and could by no chance be picked up haphazard, they would soon recognise the proper position of architecture amongst the liberal arts and sciences.—Fred R. Farrow.

*** *The R.I.B.A. Kalendar* for 1892-93 contains (pp. 141-145) full particulars of the A.A. Curriculum, its Lectures, Classes and Studio, with their Extra Subjects, respectively; and (pp. 145-146) a full list of the fees for the same.

THE CURRICULUM AT KING'S.

KING'S COLLEGE, STRAND, LONDON.

Not the least of the many encouraging results of the establishment, ten years ago, of obligatory examination for candidature as Associate of the Institute, is the foundation, partly by private enterprise, of a complete architectural curriculum at the old College, next Somerset House in the Strand. It was to be expected that the Architectural Association would in due course satisfy the requirements of its younger members and of the many young men from all parts of the United Kingdom who pass the Preliminary Examination, and who, after being registered as Probationers of the Institute, enter the Association ranks. It was to be expected that at Birmingham, Liverpool, Glasgow, Dundee, and elsewhere, successful attempts would be made to inaugurate an educational course for probationers resident in the respective localities; and no one is surprised when he finds that in the metropolis and most of the provincial centres professors and instructors of all kinds are striving to improve and develop those courses and classes in which a young man may reasonably expect to acquire a rudimentary knowledge of the sciences and the arts which go to make up architecture in its highest and true acceptation. But few of those who most desired the advancement of architectural education appeared to look to King's College for aid. The arts of construction had been long learnedly taught there by one whose great and varied gifts as an architect have been always recognised by his contemporaries; but no inducement was offered by the College authorities to young men who, intending to follow the career of an architect, wished to prepare themselves for admission to an office as articled pupils, or supplement their work, when articled, with systematic courses of study both intellectual and artistic. This, however, is now an accomplished fact, thanks to the energy of Professor Banister Fletcher, the substantial assistance of the Worshipful Company of Carpenters, and the goodwill of the College Council.

The new curriculum is spread over three years, and each year is divided into three terms, which, for 1892–93, are arranged as follows:—Michaelmas term from the 10th October to the week before Christmas; Lent term from the 16th January to the week before Easter; and Easter term from the 24th April to the beginning of July. Time-tables, one for each year, provided for this *Journal* by Mr. Banister F. Fletcher, here follow:—

TIME TABLE FOR FIRST YEAR'S STUDENTS.

Subjects of Study	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
Chemistry of Building Materials	—	10.20–11.40	—	—	10.20–11.40	—
Mathematics	10.20–11.40	11.45–12.45	10.20–11.40	10.20–11.40	—	—
Mechanics	11.45–12.45	—	—	11.45–12.45	—	—
Physics	—	—	11.45–12.45	—	11.45–12.45	—
Drawing (Perspective, Sciography — Development of surfaces, &c., Geometrical and Constructional in relation to building)	8 to 9	—	1.15–4.0	1.15–4.0	8 to 9	—
Land Surveying and Levelling	—	—	—	—	1.15–2.0	10 to 2 (alternate Saturdays)
Metallurgy	—	3 to 4	—	—	—	—
ARCHITECTURE * AND BUILDING CONSTRUCTION †	3 to 4 and 7 to 8	—	4 to 6 ‡	—	—	—
Mineralogy	—	—	—	—	—	10.20–11.20
Geology	—	2 to 3	—	—	—	11.30–12.30
Workshops	1.15–3.0	—	—	—	2 to 4	—
ARCHITECTURAL STUDIO. The Greek and Roman Orders. Drawing in outline from Architectural casts.	6 to 9	6 to 9	6 to 9	6 to 9	6 to 9	—
School of Art (Drawing and Modelling, &c.).	—	—	7 to 9	—	7 to 9	—
Wood-carving school	7 to 9	—	7 to 9	—	—	—

* Its origin, early history, and development. Assyrian, Egyptian, and Etruscan Architecture. Greek and Roman Architecture.

† Building materials, stones. Principles of construction, Ratio of support, Brick, Terracotta, Tiles, Timber (hard and soft), &c.

‡ Occasional summer visits to historical buildings and works in progress.

Time Tables for Second and Third Years' Students.

Subjects of Study (2nd year)	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
Chemical Laboratory	—	10.20–11.40	—	—	10.20–11.40	—
Mathematics	11.45–1.0	—	11.45–1.0	11.45–12.45	11.45–12.45	—
Mechanics	10.20–11.40	—	10.20–11.40	10.20–11.40	—	—
Physics and Physical Demonstrations	2 to 3	—	—	2 to 3	—	—
Physical Laboratory	—	—	2.30–4.0	—	—	—
Drawing (Geometrical, Constructional, Perspective and Sciography)	8 to 9	1.15–4.0	—	—	1.15–3.0 7.30–9.0	—
Architecture* and Building Construction†	4 to 5	—	4 to 6‡	—	4 to 5	—
Land Surveying and Levelling	—	—	—	—	3 to 4	10 to 1 (alternate weeks)
Mineralogy	3 to 4	—	—	—	—	
Engineering Laboratory (Workshops)	—	—	2.30–4.0	3 to 5	—	—
Architectural Studio	6 to 9	6 to 9	6 to 9	6 to 9	6 to 9	—
Application of the Orders in Architectural Subjects.						
Drawing and Shading from Architectural Casts.						
School of Art (Modelling and Drawing from the Antique)	—	—	7 to 9	—	7 to 9	—
Quantities	—	—	—	—	6.30–7.30	—
Wood Carving School	7 to 9	—	7 to 9	—	—	—

* Early Christian Architecture in Rome and Italy. Byzantine Architecture. Romanesque Architecture. English Architecture from tenth to fifteenth century.

† Masonry, concrete, timber-framing, centering, roofs. Iron, foundations, fire-proof construction. Mechanics of earthworks, &c.

‡ Occasional summer visits to historical buildings and works in progress.

Subjects of Study (3rd year)	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
Mathematics	—	—	11.45–12.45	11.45–12.45	11.45–12.45	—
Mechanics	10.20–11.20	—	10.20–11.40	10.20–11.40	—	—
Drawing (Constructional, Geometrical, Perspective and Sciography, Plotting Surveys, &c.	8 to 9	1.15–3.0	—	—	1.15–4.0 7.30–9.0	10 to 1
Photography	11.30–12.45	—	—	—	—	—
Architecture* and Building Construction†	3 to 4 7 to 8	—	1.30–5.0‡	—	4 to 5	—
Sanitary Science	7 to 8	—	—	—	—	—
Engineering Laboratory, (Workshops)	—	—	1.30–5.0	2.0–4.30	—	—
Architectural Studio	6 to 9	6 to 9	6 to 9	6 to 9	6 to 9	—
Architectural designs, working drawings, details and full-size details.						
Drawing and painting from architectural casts, colour decoration, &c., &c.						
School of Art (modelling and drawing from the nude, &c.)	7 to 9	—	7 to 9	—	—	—
Quantities	—	—	—	—	7 to 9	—
Wood-carving School	—	7 to 9	—	—	—	—

* French, German, and Italian Gothic. Italian, French, Spanish and German Renaissance. English Renaissance. Development of Architecture traced through the 18th and 19th centuries.

† Iron Construction, Timber framing of roofs, &c. Strength and weight of materials. Application of materials to building purposes. The finishing and fitting of buildings. Laws relating to building, &c. Building contracts, specifications and dilapidations, estimates. Superintendence of works, &c.

‡ Occasional summer visits to historical buildings and works in progress.

An additional advantage is afforded at King's College by the very complete collection of photographic and other illustrations and casts—numbering in all 2,967—from a view of the Temple of Karnak to a door-architrave from Florence, and a sample of parquet flooring of British make—as may be seen by the catalogue of the College "Reference Museum," 3rd edition, published by the Carpenters' Company, and sold for twopence. The illustrations, framed and glazed, are arranged in chronological order in the Architectural Corridor, the Professor's Lecture Room, and the Studio, photographs of which interiors may be seen in the Institute Library.* There is also a Reference and Lending Library of architectural books at the College.

The lectures on "Architecture, Building Con-"struction and Modern Practice" are given by Professor Banister Fletcher, the "demonstrator" being Mr. James Bartlett, who also instructs in Quantity-taking. The Studio is under the personal charge of Mr. James Fasnacht, B.Sc., Instructor, who was master of the architectural classes formerly held at the Royal Architectural Museum and the City and Guilds of London Institute.

Instruction in "Constructional drawing" is given by Mr. James Bartlett; and in "Geome-"trical drawing and Perspective" by Professor F. E. Hulme, F.S.A., and Mr. W. H. Webb. The Wood Carving and Modelling school is under the charge of Mr. W. H. Howard and Mr. G. T. Bell; and there are workshops in which, under Professor Capper, M.A., M.Inst.C.E., practical instruction may be obtained; while drawing from life and the antique is taught by Professor Holden. Engineering, surveying, and levelling are taught by Professor Robinson, M.Inst.C.E.; Mathematics by Professor W. H. Hudson, M.A.; Graphics and Physics by Professor Adams, F.R.S.; and other professors are intrusted with the remaining subjects specified in the foregoing tables.

The Studio, which is open every evening in the week except Saturday, is one of the chief features of the new scheme; and it is resorted to by many who have passed the pupil stage, and who find it convenient to have a large, well-lighted room in which they can work out their designs, often for competitions, in the company of other men of the same calling or proclivities. The fact that the number of those who use the Studio is steadily increasing will, I am told, render it necessary before long to arrange admission to it in the order of application. The class of "Archi-"tecture and Building Construction" already numbers 43 pupils; that of "Constructional "Drawing" 35, and that of Quantity-taking 41 pupils. The Evening classes, established principally for those engaged in offices during the day, have had, it is said, an unparalleled success.

Gold, Silver, and Bronze Medals, and Certificates, are given annually; one of the Silver Medals is given by Mr. Arthur Cates. Indeed, it is stated in the first paragraph of the Syllabus issued by the King's College authorities that the courses are intended to "furnish full information in the "theory and practice of Architecture," and that they are specially arranged to enable architects' pupils, improvers, and other gentlemen intending to follow the profession of architecture to prepare for the Progressive Examinations of the Institute, as set forth in *The R.I.B.A. Kalendar*. Through the munificence of the Carpenters' Company, pupils of slender means can obtain from the Company nominations enabling them to be admitted to the Classes and the Studio, at half-fees.

There is one little criticism, on a matter of nomenclature, in which I should like to indulge. Why do architects write and talk about "Archi-"tecture *and* Building construction?" Does not Architecture comprise building construction, and ought not building construction to be architectonic? Thus to divide that which is indivisible is to play into the hands of the mere draughtsman or draughtswoman—the scenic artist who portrays architecture—to afford him or her the means of undermining the master-art. In this, however, the authorities of King's College are not singular, for those of University College also separate architecture from construction—with a comma at least—and many of the professional newspapers in all countries invite a similar reflection in their enumeration of the purposes for which they exist. One organ of a Society in France styles itself "*L'architecture et la Construction;*" and the terms are so often used to designate as it were two separate things, that the outside world may be excused for thinking that architecture is only an art applied to building construction in much the same way as the Greeks and the Mediævals used painting and sculpture—it being apparently so long since Pugin preached and Viollet-Le-Duc supported the doctrine that a true architect ornamented his construction, and never constructed his ornament.

But to return to one's text: a curriculum of architecture was started at King's College, in October 1890, backed, among others, by a rich City Company, with every prospect of success. Another curriculum of architecture has successfully emerged from the first difficult year of its existence; and its promoters, strong in their independence, are brimful of energy and determination. There are now two Richmonds in the field of education, and with no Richard the Third to unhorse; but, on the contrary, accompanied by the hearty acclamations of those who wish the architects of the twentieth century to be men of sense and education, men of the world, as well as men of artistic taste. A wholesome rivalry is always a spur to emulation, and none know better than the young men of the architectural profession how great is the value, at least to themselves, of open competition.—William H. White.

* The views are: "The Architectural Corridor "looking North," and another looking South; "The "Professor's Lecture-room looking North-west," and another looking South-west; "The Architectural "Studio;" "The Wood-carving School looking North-"east," and another looking South-east; and a view of the College from the Quadrangle.

REVIEWS. I.

(1.)

THE ISLE OF WIGHT.

The Architectural Antiquities of the Isle of Wight from the Eleventh to the Seventeenth Centuries, inclusive. By Percy Goddard Stone, F.R.I.B.A., London. [*Published by the Author, at* 16, *Great Marlborough Street, W.* 1891.]

Although this work bears on its title-page the date 1891, the fourth and most important part has only been issued within the last two months. Nor does this imply delay; for not only is the body of this portion of the work full of valuable matter, but it contains the reference indices, and various notes and appendices most interesting in themselves, and showing most careful research. The book as a whole is one most creditable to the author, and a most valuable record. Mr. Percy Stone ought to have the gratitude not only of his brother architects and antiquaries, but of every intelligent resident in, or visitor to, the Isle of Wight.

And, before noticing the work in detail, let me say that such works as this, and that of Mr. Gotch, seem to set an admirable example. In an age when industrial developments are constantly sweeping away interesting evidences of the past, the man who will set himself not only the pleasant task of making, here and there, picturesque sketches, or measuring a few useful details, but the far more tedious and laborious task of searching out and recording the written or other collateral information bearing on his subject, and *always quoting his authorities*, is conferring a lasting benefit on his neighbourhood and country. I venture to suggest to young architects not yet overwhelmed by practice (and especially to provincial architects), that by a systematic working together, each in his own country, on such lines as Mr. Percy Stone has set for himself, they would be helping to build up a literary monument of priceless value to their country, with no waste of time to themselves.

Though published in four parts, the work in question is divided into two volumes or parts; one dealing with so much of the island as lies east of the "Medina" river; the other with that to the westward. Each of these volumes is again subdivided into buildings ecclesiastical and buildings domestic; and each portion is not only very fully illustrated by excellent and careful drawings, but appendices with notes full of information, references to original documents of all sorts, and very ample footnotes are provided.

Of the drawn illustrations, although now and then there occurs one by some other skilled hand, the great bulk are by the author himself, and are not only careful and expressive, but, where sketches or general views are given, often very artistic. It is, perhaps, useless to protest against the present vogue (amongst architectural draughtsmen) of shading a flat stone wall, as if it were the shady side of a haystack; or a summer sky, as if it were a sanded floor. In these matters Mr. Stone, if he sins, sins in good company. But the better the drawings, the more are such "fashionable vices" to be regretted. In a few instances photogravure has been employed—as at Carisbrooke—with excellent effect. Both here and in Mr. Gotch's book one sees at a glance that, for exhibiting the present state of the features of a building, no drawing can equal the sun-picture.

Turning the pages in their order, the ecclesiastical structures of the "East Medine" begin with Arreton Church. This is an excellent example of the thoroughness of Mr. Stone's work. A complete history of the church and its alterations is given from the eleventh century to the present time; and illustrated by five full-page sheets of drawings, and a few smaller cuts. Out of curiosity, I have compared the "Guide to the Isle of "Wight," from which the majority of tourists derive their information (Wayland's). The description of this church occupies *one line*: "Here "is an old church with some quaint epitaphs in "the churchyard"! In describing the old church at Bonchurch mention is made of a wall-painting, discovered in 1847, which faded before any copy of it was made. If this referred to any pictorial subject, it might be true. But remains of decorative painting, of undoubtedly thirteenth-century character, were sketched by me about 1867, and were, I think, preserved when the church was repaired shortly after that date.

At Brading, which is admirably illustrated, is a fine Jacobean altar-table, not given in Mr. Stone's book, though he gives several others of about the same date in other churches. He also has modified, in his "Corrigenda" (vol. 2, xiv.), his inferred opinion that no church existed here at the time of the Conquest, because it is not mentioned in Domesday Book. There is very little doubt that a church did exist.

Mr. Stone is not quite correct in his assertion, when speaking of St. Helen's Priory, that "of the "ancient building not a vestige remains." Portions of the ancient building remain in the basement and adjoining offices. In making some alterations in 1880, I came upon a lattice casement still retaining one or two of the old quarries with the falcon jessed and belled—the badge of the St. John family, who for a time owned the Priory. I also here met with beams having the "heart-shaped stop" which Mr. Stone seems to have met with elsewhere in the island. The adjoining farm buildings are also of Tudor date. With Quarr Abbey, once so important, and of which so little remains, Mr. Stone has evidently been at great pains to place on record all that can be known, or even fairly surmised, as to the extent and plan of the ancient buildings. The general arrangements of Cistercian monastic buildings have been so carefully investigated and laid down by Professor Sharpe and others, that examination of a devastated Cistercian site can be made with better chance of success than in many other cases. Here wonderfully little remained, but Mr. Stone seems to have linked that little together with much care, and fair probability. At Shanklin Church, Mr. Stone has been informed that transepts were added in 1852; but I have before me a photograph taken by myself in 1853,

when the transepts were not yet added, nor do I think they were added in 1854, when I frequently saw this church.

Turning now to the domestic examples in the "East Medine," the reader will find a few interesting manor-houses carefully described and illustrated. The chimney-pieces at Arreton and Merston are good examples of early Jacobean work, the plans of the latter and of Haseley are simple and suggestive, and most of these old houses present some interesting features. But it is in the western half of the island that the most interesting, because the least disturbed, of the manor-houses are to be found. Of the churches in "West Medine," that of Carisbrooke is the most important; but the little churches, tucked away in the "Coombes," have not been overlooked, and present, in many cases, interesting features. To the antiquary and the architect not one of the buildings here described will be more interesting than the oratory and lighthouse on St. Catherine's Down, on account of the rarity of such structures dating so early as the beginning of the fourteenth century. I have not seen the original, but the author has evidently examined it, and drawn it with much care: and he gives an amusing account of its origin.

In the last issued part of the work, containing domestic buildings west of the Medina, Mr. Percy Stone describes and illustrates Carisbrooke Castle; and does so with a care and thoroughness which the previous parts of his work prepare the reader to expect. Every fact given is authenticated by a reference: each bit of family history is supported by a foot-note. The history of the structure itself is admirably illustrated both by facsimiles from old surveys and by clear, measured drawings; and the author seems to have been untiring in his consultation of correlative documents, to which copious notes give reference. This description alone entitles Mr. Percy Stone to take rank among the most painstaking and careful of our modern antiquarian architects. In it he shows himself a true disciple of Professor Willis, whom he follows also in the moderation of language with which he refers to acts of Vandalism which must have been sore trials to his enthusiasm. One longs to inquire what rector of Shalfleet has permitted the removal of old stained glass which existed in 1860, but of which "no traces can now be found"!

Among the "accessory" objects illustrated are examples of old plate. The most interesting of these are, perhaps, the Newtown mace (part iii. p. 47), and the Gatcombe chalice, 1540 (pl. 86). The Appendix, A., giving a schedule of church goods, 6th Edw. VI., is a valuable addition to a valuable work.—J. D. Crace.

(2.)

THE INDIAN SURVEYS.

The Monumental Antiquities and Inscriptions of the North-Western Provinces and Oudh, described and arranged by A. Führer, Ph.D., Archæological Survey. [*Government Press, Allahabad*, 1891.]

This large volume is the second of the new series of Archæological Survey volumes—the first being that on the *Sharqi Architecture of Jaunpur*. Mr. Markham, in his excellent *Memoir on the Indian Surveys*, tells us that in July 1870 it was resolved by the Government of India that a central establishment should be formed, among other duties, to collect the results of former researches; and again, in July 1873, an influential meeting of noblemen and gentlemen interested in the history and antiquities of India was held in London, when a memorial was prepared and presented to the Secretary of State for India, suggesting the adoption of measures to secure the efficient protection of historical monuments and their permanent record. The first suggestion of this memorial ran thus:—"We desire to recommend the classification of the different monuments in India "under several heads, such as the following:—(*a*) "Those which should be kept up in permanent "good repair by Government; (*b*) Those the "further decay of which should be arrested by the "eradication of trees and the exclusion of water "from the walls, but which would need only "occasional subsequent attention from Government; and, finally, (*c*) Those of which, either "from their advanced stage of decay or comparative unimportance, it is impossible or unnecessary to undertake the preservation, but of which "it is desirable that a record be obtained before "their destruction is completed." The Governor-General (Lord Northbrook) in Council approved of this, and issued orders that the classification should be carried out. But Government machinery works slowly—perhaps necessarily so, when officers are required to undertake additional work that must either seriously interfere with their proper duties or be carried on intermittently. It was not till 1880 that an effort was made to comply with this part of the prayer of the memorialists, and in November 1883 the local governments were directed to classify the lists of monuments that had then been prepared by Major Cole, in accordance with the scheme stated above. The order was repeated in August 1885, with a view to fresh lists being prepared in a proposed tabular form for each Government. The Public Works Department in Bengal adopted this form in the *Revised Lists* prepared by order of that Government and published in 1887; but the result is most unsatisfactory, the materials not having been edited with proper care and intelligence.

Dr. Führer, in this volume, has succeeded in systematising all the information obtained from local officers and private individuals, or found in the Survey *Reports* of General Sir A. Cunningham, in the *Researches* and *Journals* of the Asiatic Societies, *District Memoirs*, *Gazetteers*, and other sources. The result is that we have in this volume lists of all the notable antiquities of the North-Western Provinces and Oudh, arranged alphabetically under the districts in which they are found, with references to all available sources of information, and accompanied by a set of admirable indices.

Every monument mentioned is classified by a numeral on the margin in accordance with the

divisions laid down by Government; and in a separate index (pp. 335-359) these buildings are again enumerated under the different classes and subdivisions, with references to the pages where they are described. Thus are marked off, first, those monuments of real antiquarian interest, for the maintenance of which Government or private persons may be regarded as responsible; next, those which only need protection; and, thirdly, those that are unimportant or too ruined to demand preservation. The other indices give lists (1) of the personal names mentioned, with the dates and places with which they are associated (pp. 361-391); and (2) a general index of the places described (pp. 393-425).

The value of such a work as this must be very apparent; it ought to be most helpful and stimulating to the many officers and residents in the wide area with which it deals, "enabling "them," as the author remarks, "if their tastes "so incline, to interest themselves in the character "and history of the remains in their vicinity," by supplying a basis hitherto unavailable for their inquiries.

These lists may be regarded as nearly complete, so far as is known: possibly a few monuments in unvisited localities may still turn up above-ground. More additions and better information regarding Inscriptions may naturally be expected —for many of them must be buried.

But the mounds that everywhere stud the country have as yet been very imperfectly explored, and many have not even been mentioned. These, as shown by the excavations at Manikyala, Mathura, and Ramnagar, in the north, and Amarávati in the south of India, entomb much of the history and art of the past. Lists of them have not yet been formulated; but they would be most useful in directing investigation wherever they prevail, but perhaps especially in the north—in the Gangetic basin and Punjab—and in the lower areas of the Godavari and Krishná basins, where they are so numerous and so frequently contain interesting remains that are only heard of when some local engineer or contractor has "utilised" most of their contents for railway, canal, or other purposes.

Dr. Führer has done his work so well that it may be taken as a model by all who follow him in other provinces,—the remains in which, we trust, will also soon be catalogued on the same plan. The volume is exceedingly well printed at the Government Allahabad Press, and its contents will be of great interest to all students of Indian antiquities, whether abroad or in India itself.

Edinburgh. J. Burgess.

(3)

BUILDING CONSTRUCTION.

Advanced Building Construction: A Manual for Students. By the Author of "Notes on Building "Construction." [*Longmans, Green & Co.*, 38-41, *Paternoster Row, London, E.C.*]

The anonymous author of Rivington's *Notes on Building Construction* has such a well-established reputation for accuracy and thoroughness in all that relates to the scientific side of construction, that his new book will naturally be expected to be one of the best of its class. This expectation is fully justified by the book itself, which is, especially considering its price, really remarkable for the fullness of its information and the number and clearness of its illustrations. The preface states that it "contains all the information re-"quired for the Examination in the Second Stage "or Advanced Course of Building Construction "held annually under the direction of the Science "and Art Department," for which it may confidently be recommended as a safe and sufficient text-book.* A thought, however, is suggested by the perusal of this and many other hand-books, similar in idea if inferior in execution, as to whether that examination is as desirable a goal as we are officially asked to believe. These books follow the Syllabus of the Department, and so far no fault can be found with this one—it is admirable within the limits prescribed. But there is much cause to ask for a revision of the Syllabus. In building matters the Department—acting, it would seem, through a board of engineers—thinks of science to the entire exclusion of art. They may say that they teach "art" separately, and that students may in other classes learn about "styles" and "ornament." Such a system can never bring about that general spread of good taste in everyday matters which is claimed as the reason of existence of the costly South Kensington institutions.

Good construction and good design are not separate studies, much less antagonistic ones, as many engineers and some "artist-architects" seem to think; the two are always acting and reacting on one another, and cannot be properly learnt except together.

It is a common complaint that there is no healthy "vernacular" building at the present day, and most architects know the trouble of educating workmen to perform even decently the commonest details. The reason for this is not far to seek. Instead of taking care that all designs shown in the authorised books from which not only most artisans but many architectural students gain their first ideas, at their most impressionable age, shall be based on sound principles and be suitable for imitation, the governing powers are content with an obsolete narrowness of range which ignores many of the most useful forms of construction, and with ugly and inappropriate detail, such as no educated mind could endure to see carried out. What an inestimable public service would be done by an architect who would produce a treatise on "Building Construction" on new lines, teaching thoroughly good methods of working exemplified in forms and details, not by any means necessarily "ornamental," but simply straightforward, appropriate, and graceful.

Arthur Flower.

* It is further stated that the book "forms a sequel "to *Elementary Building Construction and Drawing*, "by Mr. E. J. Burrell, which deals with the First "Stage."

OBITUARY.

James Fowler, *Fellow.*

1828–1892.

James Fowler, who died at his residence at Louth on the 10th inst., was elected a Fellow of the Institute in 1865, and was a member of Council for four years. He was born at Lichfield, and articled to Mr. Joseph Potter of that city, whom he assisted in illustrating his work on Buildwas and Tintern Abbeys. His connection with Louth commenced in 1849, when he measured the well-known tower and spire of the parish church, which is 300 feet high; and in 1851 he joined Mr. Joseph Maughan in a partnership, which was terminated in 1859. During this period the firm was engaged in some important engineering works in reclaiming land on the coast of Lincolnshire. From this date Mr. Fowler followed the profession of architect only. It is a proof of the ability of the man that, from a centre so remote as Louth, he could obtain and carry out work in almost every county in England. From 1871 to 1886 Mr. Fowler was Diocesan Surveyor for Lincolnshire.

A typical specimen of his work can be seen at St. Mary's, Newington, which was built during the time that the present Archbishop of York was rector, and which, although still incomplete, was pronounced by Sir Gilbert Scott to be one of the finest modern churches in London.

He was a student of architecture to the end of his life, with a strong appreciation of good work in whatever style it was to be found, though his work, as is only natural, favoured the early forms of Gothic. The design of his ecclesiastical buildings shows great knowledge of the various phases of mediæval work which he adopted, treated in a thoroughly individual manner. His knowledge of materials was very great, and his construction always simple and correct. Mr. Fowler assisted Messrs. Bowman and Crowther in their work on the churches of the Middle Ages, and Mr. J. S. Padley with his book on the Ancient Monastic, Ecclesiastical, and Domestic Edifices of Lincolnshire. He contributed a Paper on the Parish Church at Louth to the Diocesan Archæological Association, and at the meetings of that society always took a leading part.

In the buildings which have been restored under his direction will be found some of his most careful and artistic work. The restoration of the parish church of Louth was one of the works he took great interest in—a most charming view of the tower and spire being the first feature he always pointed out from the grounds of his house.

On the death of Mr. Sharpe, Mr. Fowler took a prominent part in the annual excursion of the Architectural Association; from 1876 to last year he attended every year except one, and in 1886 he joined the first Easter excursion to Italy.

His conspicuous ability and commanding presence enabled him to fill the many public offices which he held with dignity and success, and no better proof of the esteem in which he was held by his fellow-townsmen can be given than the fact that he was elected to the important position of Mayor of Louth no less than five times.

Appended is a list of some of his principal works, which does not include the numerous parsonages, private houses, and business premises he also carried out. They are:—

Modern Churches.—St. Mary's, Lichfield; St. Swithin's, Lincoln; St. Andrew's, Lincoln; St. Mary's, Newington, Surrey; Holy Trinity Church, Wanstead, Essex; St. Matthew's, Skegness; SS. Mary and Gabriel Church, Binbrook; St. Michael's, Louth.

Restorations.—Parish Church, Louth; Bolingbroke Church; Heckington Church; Tathwell Church; Leverton Church; Freiston Priory; Bennington Church; Balderton Church; Hawston Church; West Retford Church; Nuttall Church; Domus Dei Hospital, Stamford; Riseholme Palace; Alnwick Tower; Orme Almshouses, Louth; Bede Houses, Louth.

H. D. Searles-Wood.

Matthew Wyatt [*H. A.*, formerly *Fellow*].

1840–1892.

Matthew Wyatt was the eldest son of the late Thomas Henry Wyatt (President 1870-73), and was born in Great Russell Street, London, on the 4th March 1840. He was educated at the Grammar School, Ipswich, under the late Dr. Rigaud. In 1856–57 he studied in the atelier of Mons. André, Member of the Institut de France, subsequently entering his father's office. From 1868 he was associated with his father, being chiefly concerned with London works, amongst which may be named the Middlesex Hospital, the Governesses' Benevolent Institution, the Fever and Small-pox Hospitals at Stockwell, the Recreation Rooms for the Royal Artillery at Woolwich, the Consumption Hospital at Brompton, the Institution of Civil Engineers, &c., &c.

For a short period after his father's death he carried on the business, and for two years was associated with Mr. W. L. Spiers, A.R.I.B.A., whose connection with his father's office had been of long standing. In 1885 he retired to a small property in Hampshire, where he resided till his death on the 26th ult. For some years he had been in failing health, and consequently saw little of old professional friends. He was elected an Associate of the Institute in 1871, and a Fellow in 1877, retiring in 1889 to the class of Honorary Associates.

He was buried at Weston Patrick, Hampshire, in a grave next to his father and mother, in the presence of the members of his family, a few intimate friends, and a large attendance of the villagers. He leaves a widow and one son.

T H. Wyatt.

London: Printed by Spottiswoode & Co., New-street Square; and published by The Royal Institute of British Architects, at No. 9, Conduit Street, in the Parish of St. George, Hanover Square, both in the County of Middlesex, 27 Oct. 1892.

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THE OPENING ADDRESS OF THE SESSION.

Delivered by Mr. J. Macvicar Anderson, President, 7th November 1892.

GENTLEMEN AND COLLEAGUES,—

WHEN the ancient Emir declared "Oh that mine adversary had written a "book," he quaintly, though perhaps unconsciously, betrayed the relish with which he would ruthlessly expose the weak points displayed in the recorded opinions of his enemy. In the belief that I have no adversary within these walls, nor, I hope, beyond them, I am happily released from the dread of such hostile criticism, and confidently indulge the hope that the views I have recorded, and which it is now my privilege to submit on the opening of another Session, may be received with friendly, and even lenient, criticism.

We live in an age of Progress. Nations and individuals are alike engrossed in the keen contest. In politics, in art, in literature, in science, in social and political economy, this is equally true. It matters not greatly whether customs are good, or men are able and useful,—if not conformed to the spirit of the times, they are alike set aside or superseded in favour of modern Progressivism. Real progress is the characteristic of a living age. To attain to whatever elevates the aspirations, ennobles the ambition, or promotes the civilisation of man is commendable. But to inaugurate constitutional changes from motives other than the welfare of the community, to yearn for novelty in art, to pander to sensationalism in literature, to preach doctrines which are opposed to the true principles of political economy, these are the outcome of a foolish craze for progress which is a remarkable characteristic of our day. Those who cling with affection to customs which, having been approved by the experience of past generations, they refuse to abandon till convinced that change is necessary—not for the sake of change—but for the well-being of society, are apt to find themselves regarded as venerable relics of antiquity, eminently respectable it may be, but tolerated only because they are so, and destined at no distant date to be swept away in the ever-increasing flood of so-called Progress. To attempt to define the extent to which the changes and reforms of modern times may have contributed to true progress, would involve an inquiry foreign to my present purpose; it may, however, be asserted with tolerable safety that such changes have not always deserved the name, and that, in not a few instances, they have retarded, instead of forwarding, the advancement of civilisation. With no less assurance may the forecast be made, that some at least of the changes

with which society is now threatened will fail in attaining the results professedly desired by their advocates, and will end in disappointment, if not disaster. If, therefore, we attempt to review some aspects of our profession, or of interests cognate to it, with the object of defining our position in relation to the past, or of forecasting our probable position in the future, it is of the first importance to be satisfied as to what constitutes progress, and to be on our guard lest, as too frequently happens, we confound it with mere change, or the restless desire for disturbing existing institutions.

Draughtsmanship.

At the outset of such a review we are struck with a remarkable development of recent years: the perfection which architectural draughtsmanship has attained. It is not possible to regard the drawings submitted yearly for the prizes offered by the Institute and the Royal Academy, or prepared in profusion for competitions, with anything short of admiration, combining as they do technical accuracy with artistic feeling—the essential characteristics of good draughtsmanship. To set side by side the drawings of some generations since and those of to-day, is to exhibit not so much comparison as contrast; for in many drawings of old masters in architecture, knowledge of perspective and firmness of touch are alike conspicuous by their absence. The perfection of modern draughtsmanship is, no doubt, to be traced, to some extent at all events, to the spirit of emulation inspired by competitions for students' prizes, and to the prevailing practice of inviting competitive designs for public buildings, both of which naturally enlist all the resources of the draughtsman's skill. That this advance in architectural draughtsmanship constitutes, so far as it goes, real progress, may be conceded; indeed, the younger members of the profession may be honestly congratulated on the artistic beauty and perfection of their handiwork. If, therefore, I venture to point out a temptation to which their skill exposes them, I am actuated by no ungracious spirit of desiring to detract from the legitimate merit of their work. No one can doubt the importance of good draughtsmanship to an architect, for it enables him to express readily and freely the ideas which are to constitute his design. The pencil is to the architect what the pen is to the author: the mode of expressing his ideas; no more. Essential as this is, obviously the mode of representation is of less consequence than the thing represented, and it is because I have observed a tendency to drown architecture in mere draughtsmanship that I am induced to remind you that, although every architect ought to draw, and draw with facility, it is yet possible to be a good architect without being a brilliant draughtsman; and, conversely, that it is possible to be an expert draughtsman, and yet not to have any claim to be an architect. Architecture is the material embodiment of conceptions of the mind; Drawing is the medium by which these can be, at the best, but inadequately expressed. It may be excusable to smile at the draughtsmanship of old masters whose names live in history as great architects, but it may not be amiss for the brilliant draughtsmen of to-day, while justly proud of their attainments, to ponder on their prospects of acquiring equal fame; for while it is good to know how to draw with artistic excellence, it is better to know how to design with purity and truth: the one may be, like a beautiful face devoid of character, the graceful expression of vacuity; the other, like features inspired by character, must be the embodiment of spirit and of life. In architectural competitions the importance of appointing professional assessors is often enforced on the ground that it is impossible for promoters to arrive at a just decision without the assistance of an expert: this is true: but my experience has taught me that there is another side to this question, and that not the least responsible part of an assessor's task is to protect promoters from being imposed on by the tricks of draughtsmen whose ability is more apparent than their morality. Such trickery may mislead the uninitiated, it is transparent to the expert; and at the hands of a just assessor it will not fail to meet with the reward it

deserves. In a word, so long as draughtsmanship is the truthful delineation of effects which it is desired to produce, it cannot be too good; when, however, truth is disregarded, and when the temptation is yielded to, of producing delusive though attractive effects which the draughtsman knows could not exist, then no amount of technical or artistic cleverness can make it worthy of the art it professes to delineate, or bring it within the sphere of true progress.

Architects' Education.

Drawing being part of an architect's training, it is natural, in passing, to glance, however cursorily, at the more general question of education. Recent years have witnessed vast strides in this direction. The question is not now so much whether people will be educated, as whether they do not incur the risk of over-education. Food is necessary, but excess of food will not assimilate, and is injurious. The progressivism of School Boards involves this danger, and has a tendency to engender discontent by lifting some above the sphere for which they are suited by nature, and in which they would, unless thus surfeited, become useful members of the community. State Education should be elementary. When it embraces higher branches, the advantage, to say the least, is questionable. Modern Progressivism, however, has not reached the stage of proposing that free education should be extended to students in architecture, and the risk of over-education, therefore, is one to which we are not as yet exposed; but, apart from such a utopian prospect which, for all we know, may be in store for our posterity, the educational facilities which students now enjoy are remarkable when compared with those of a generation or two since. Such agencies in the shape of Colleges, Schools, Institutes, Academies, and Classes, are too numerous and too well known to justify recapitulation; I must, however, notice, in passing, the latest developments exhibited in the remarkable curriculums of University College, King's College, and the Architectural Association. The new departure of the last in inaugurating a more complete and systematic curriculum of professional education than it had previously attempted, was regarded by not a few with some amount of apprehension. A perusal, however, of the annual volume—the *Brown Book*—recently published, in which are given the results of the first year's working, must tend to dissipate such fears. The report, which I commend for your perusal, bears the impress of a simple statement of facts, without any apparent effort to make things look better than they really are. A glance at the balance-sheet—the crucial test of success or failure—shows that the fees paid by students amounted to the large sum of £645, which more than sufficed to defray the fees paid to lecturers, amounting to £601, while the result of the whole year's working, including increased rent and charges, shows the comparatively small deficit of £128. The donations paid to the general fund amounted to £991, and, after defraying the cost of alteration of premises, furniture, and the above deficit, there remained a balance at the credit of this fund amounting to £480, to which has to be added donations promised but not yet paid amounting to £359. Without entering into further detail, which the time at my disposal forbids, it will be seen that the progress attained during the first year—necessarily the most trying and critical—has been real, and such as to encourage the promoters in the continued and energetic prosecution of the scheme. It is obvious that an undertaking so wide in its organisation, and requiring so numerous a group of workers, could only be attempted in the metropolis; but we may, without indulging in prospects too sanguine, anticipate the advent of a systematic educational organisation throughout the country. The scheme now under consideration of creating architectural provinces, each with its own centre, and embracing an area with defined boundaries, would certainly tend, by stimulating local organisations, to facilitate the attainment of such a result. Existing educational agencies might thus be fostered, and the advantages they offer be brought more prominently before students, and new agencies might be created where none now exist, so that students in each architectural province would not be without those educational

facilities which are now enjoyed in the metropolis. To time must be left the development of such a scheme, for it is apparent that, like all other attainments in real progress, they cannot be forced into existence, but must be slow and gradual in their growth, the outcome of a carefully thought-out organisation.

To what extent architectural education is likely to be affected by the proposed establishment of a Gresham or Teaching University for London cannot be predicated. A Royal Commission is now engaged in taking evidence, and considering the whole question. That such a University must embrace art, as well as science and literature, may be taken for granted, and it would seem reasonable that a definite place should be claimed for Architecture. The scope of the University is thus defined by Professor Huxley in a letter from him which appeared in *The Times* on the 7th of last July :—

> The University occupies a position altogether independent of general or of technical education. It is neither an institution for testing the work of schoolmasters, nor a machinery for ascertaining the fitness of young men to be curates, lawyers, or doctors. It is an institution to which a man who desires to devote himself to any branch of science or art may go in full confidence that he will find there those who can teach him (or put him in the way of learning) what is already known in regard to that discipline, and still more train him in the methods by which he may himself advance that kind of knowledge. Under art are to be comprehended literature, the pictorial and plastic arts, architecture, and music; under science, logic, philology, mathematics, the physical sciences, and archæology and history. The question of the connexion of the university (in this sense) with the high schools and the technical schools of theology, law, medicine, and so forth, comprehended under the present "faculties," and the working in of the present chaotic raw material of educational institutions in London into an organised whole, are matters of detail which will settle themselves as soon as people are agreed upon first principles.

The Examinations.

Teaching naturally suggests Examination. Having devoted a considerable portion of my Address last year to this subject, it would be unpardonable were I now to detain you at any length by recurring to it in detail. I must, however, be permitted to remark that, so far as I know, no advocate of Examination ever thought or expected that it would or could create a great architect. It is not fair criticism to condemn an educational test because it does not effect a result which was never intended, and which is impossible. As consistently might University tests be objected to because they do not in all cases produce great divines! No one thinks, however, of disputing that they act as stimulants to the acquirement of knowledge, upon which success in life so largely depends. I feel justified in asserting that the Associates' Examination has hitherto successfully withstood the somewhat fierce—and I feel bound to add, the not always just or fair—criticism to which it has been exposed, for as the practical issue of all that has been said and written, the rising generation of architectural students have come forward in increasing numbers, and the cry is, Still they come! Does not this imply that they appreciate the active labours of the Institute in endeavouring to raise the standard of knowledge and promote the efficiency of architects, rather than mere academical and inoperative disquisitions? That the Examination may exhibit defects of organisation, or that it may be capable of improvement in certain particulars, is very possible; but that, after all, is no more than may naturally be looked for in a comparatively new institution, subject to such changes as experience may from time to time dictate. Those who may desire to offer suggestions with the view of rendering it more efficient, may be assured that any reasonable proposals will always receive careful and impartial consideration from the Board of Examiners, whose generous and unremunerated labours we all appreciate so highly. I desire to record the conviction that the Examination continues to prove—what I never doubted it would prove—an encouragement to study and a stimulus to the increase of knowledge, and because it has proved this, it has been, in my opinion, a step in the direction of real progress. I embrace this opportunity to intimate to the architects of the United Kingdom that we invite their co-operation in the endeavour to obtain, for all those about to enter the architectural profession, a systematic course

of education tested by examination, and to remind them that the examination will be conducted in its present form until the end of 1893 only, and that thereafter the Progressive Examinations, of which detailed particulars are published in *The Kalendar*, will be in full operation.

Qualification of Fellows.

In view of the keen interest that is evinced in the proposed examination or qualification for Fellows, you will, no doubt, expect me to refer to it, and indeed I should not be disposed to pass without notice a subject which touches so nearly the interests of the profession and of the Institute. Last year I did not hesitate to express the conviction that, in pursuance of the permissive powers of the Charter, the Institute should declare that, on and after a date to be specified, "every person desiring to be admitted a Fellow shall be required to "have passed such examination or examinations as may be directed by the Royal "Institute," subject to the proviso that "in special cases the Council shall have "power to dispense with such examination or examinations." If I have not since then pressed the consideration of this subject on your attention, it is not because I have seen any reason to alter or modify the view I thus expressed, but because, having, as it were, launched it, I deemed it only right that full time should be allowed for the mature consideration of a project fraught with such important interests. For the same reason, when a definite proposal was submitted to you by Mr. Barry, at the close of last session, the decision you then arrived at to refer the whole subject to the Council, that they might consider it in all its bearings, had my full sympathy and concurrence; for it is scarcely possible that a subject of this nature can be treated in a controversial discussion at a sessional meeting with the same grave deliberation that it is likely to receive in the calmer atmosphere of the Council-room. The subject being still *sub judice* so far as the Council are concerned, I am precluded from treating it in such detail as I otherwise might do; but I apprehend that there is no impropriety in pursuing the course I adopted last year, and placing before you my own opinion, for what it is worth, without in any way pledging the concurrence of the Council in my views. I conclude that all are now convinced, whatever may be their individual opinions as to how the change should be effected, that some change must be made in the qualification for Fellows. It would be inconsistent and intolerable were the present position to continue, for it means that up to thirty years of age men can only be admitted to membership by passing an examination, and that after reaching that age they can be elected Fellows without any such test. This was never intended to be a permanent arrangement, and has only to be stated to secure condemnation. Mr. Barry's proposal is that candidates for Fellowship should, with certain exceptions, only be elected from the class of Associates. This would practically be equivalent to applying the same test to the primary and secondary classes of members, and does not seem to me, therefore, sufficiently to meet the case. Then, again, there are those who consider that the qualification for Fellowship should be a separate examination on a higher grade than that for the Associateship. To this the reasonable objection may, I think, be raised, that men would thus be called on to undergo an exhaustive and a trying ordeal at a time when they are likely to be engrossed with practice, and would not, therefore, have leisure to prepare for it. The resulting issue might, and probably would, be that architects who had already passed the Associates' Examination, and who might be demonstrating their ability in their executed works, might be subjected to the indignity of failure simply because they could not give the necessary time for preparation without sacrificing their position or their prospects. It would seem to me unreasonable to expect men, who have already proved their knowledge of the theory and science of architecture by having passed the Associates' Examination, to undergo another and a more difficult ordeal of a similar nature, their capacity for which they may have sufficiently exhibited in their works. On the other hand, it seems to me reasonable that the single test of theoretic and scientific know-

ledge is sufficient, and that having once satisfied that, the further test or qualification for Fellowship should be, in addition to what now exists, an examination of the actual work of the candidate. In short, let an Associate be tested as a student; let a Fellow be tested as an architect. To carry this out, it would only be necessary to enact, in accordance with the permissive powers of the Charter, that on and after a date to be specified, every person desiring to be admitted a Fellow shall, in addition to the present qualification, be required to have passed the Associates' Examination, and to undergo the further test of submitting to the Council evidence of his executed works, always providing for special or exceptional cases by the dispensing power which the Charter confers on the Council. Such an enactment would remove the existing anomaly that a candidate twenty-nine years of age can only acquire membership by examination, while a candidate thirty years of age can acquire it without any such test, and it would further meet the views of those who, to use the characteristic, if somewhat emphatic, words of Mr. Ernest George, think that "the Institute should relinquish the custom of admitting any "respectable father of a family, however damnable his productions." It is not apparent what is the necessary connection between being the father of a family and producing architectural works deserving of such condemnation, but this Mr. Ernest George will, no doubt, be able to elucidate during the deliberations of the Council. Apart, however, from the somewhat quaint and scarcely reasonable paternal restriction referred to, I understand Mr. Ernest George to mean that the proper test for admission to the Fellowship is the work of the candidate, and in this, as you will have seen, I concur. What better or more fitting test can there be? for it is true—happily or unhappily as the case may be—that by his works he is already known and judged by the public. For some time past it has been the custom of the Council to request applicants for the Fellowship to submit drawings or photographs of their executed works, a custom to which I have consistently objected, on the ground that it was tantamount to the institution of a test or examination for Fellows which was not sanctioned by the Charter and was therefore illegal. But the case is now different. We propose to institute such a qualification in accordance with the powers which the Charter conveys, and it consequently becomes not only legal, but to my mind would be equitable, to require an applicant for the higher class of membership to be tested here—as he is judged by the public—by his works. It may be objected that this would be subjecting an architect to examination on what, after all, is a mere matter of taste. I think not. Architecture is much more than a matter of taste, and if this test is applied, it must be a test of architecture. The evidence submitted must be such as will illustrate the candidate's power of design as well as his scientific attainments, and will enable the Council to judge of his title to be, not merely an artist; not merely a draughtsman; not merely a designer; not merely a constructor—no, but the combination and embodiment of all these—in one word, an architect. The Council of the Institute is a body composed of individuals each one of whom probably has his own idiosyncrasies and preferences, and his own conception of what constitutes good architecture, but the collective body will, I apprehend, ever be what it should be, the representative, not of a school or a party, but of the profession of architecture, and I can conceive of no adjudicatory court likely to prove so fair and so competent. I indulge the hope that the Council may see their way to present to you in due course a unanimous recommendation on this subject, and that after full discussion the Institute may also arrive at a unanimous decision as to the best solution of the problem. Division is to be deprecated. Opinions of course differ—nor could we expect it to be otherwise. If each one resolves to adhere uncompromisingly to his own opinion, unanimity cannot be attained. Let me venture to urge on all to approach the discussion of this matter in the spirit of friendly compromise, willing to be convinced —to let good arguments give place to better—and anxious only that the ultimate

decision may be such as will most conduce to the true and permanent interests of architecture, and to the attainment of real progress.

The R.I.B.A. Publications.

I desire now to refer to a subject affecting the internal policy of the Institute which seems to me of considerable importance. At present the Institute issues three publications annually—*The Kalendar*, *The Journal of Proceedings*, and *The Transactions*. The *Kalendar* is a book of reference affording full information on all matters connected with the Institute, invaluable to many and useful to all. *The Journal of Proceedings* comprises a digest or *précis* of the Papers delivered at the Sessional Meetings, a full report of the discussions to which they give rise, a leading article and other contributions of literary excellence on subjects of interest to the profession. The volume of *Transactions* is a carefully edited and profusely illustrated reproduction of the Papers delivered during the Session. Under this system the Papers read at the Sessional Meetings are—with the exception of Presidential Addresses—printed, first in the form of an abstract in *The Journal of Proceedings*, followed by a full report of the discussions; and afterwards they are printed in full along with illustrations in *The Transactions*, followed by an abstract of the discussions. Presidential Addresses, on the other hand, are printed first in full in *The Journal of Proceedings*, and afterwards in *The Transactions* in a form in which they were neither conceived nor delivered. Discussions, again, are printed, first in full in *The Journal of Proceedings*, along with the abstract of the Papers they refer to; and afterwards in *The Transactions* in the form of an abstract, following the full report of the Papers. Thus all Papers and all discussions are printed twice, once in an abridged form which is practically valueless for reference, and the full reports of the Papers, and of the discussions emanating from them, are respectively printed in separate volumes and at different dates. It is difficult to conceive of a system more confusing, inconvenient, costly, and ridiculous; the inception of which it is not easy to account for, the continuance of which it is impossible to justify. It seems, indeed, to combine every disadvantage which a disordered ingenuity could invent, and to deprive members of every advantage that they have a right to look for. What benefit can there be in printing all our Papers and discussions twice; in publishing Papers and discussions in separate volumes and at different periods; and in issuing the discussions in full at the time they occur, and the Papers which gave rise to them months afterwards when both have become ancient history? The true value of a discussion can only be appreciated by those who have either heard or read the Paper which inaugurated it; but members—with the exception of the comparatively few who are present at the Sessional Meetings—receive a full report of the discussion without knowing much of the subject as opened, and for the full report of the latter they must wait until after the close of the Session, when the subject, if not forgotten, has probably ceased to be of interest. Thus the printed reports both of our Papers and discussions lose much of the value they ought to possess, both for ourselves and for the public.

This brings me to the proposal which I desire to submit for your consideration, namely, that the separate publications now issued—*The Journal of Proceedings* and *The Transactions*—should in future be merged in one publication, to be called *The Journal of the Royal Institute of British Architects*; that such publication should be issued within three or four days of the dates of the Sessional Meetings; and that it should comprise a full report of all Papers and Addresses in the form in which they are delivered, with illustrations, and a full report of the discussions, along with such other contributions, articles, critiques, or reviews as may be deemed of professional interest. In justification of the present system, it will, no doubt, be urged, that it would be impossible to publish the sessional Papers shortly after delivery, and still more impossible to reproduce the illustrations, without involving the risk of errors, inaccuracies, and defects which are inherent to hasty production, and that, consequently, our Transac-

tions would, under such a procedure as I suggest, be deprived of many of the admirable qualities which Mr. White's labours have imparted to them, and would lose much of their value as a permanent record of the literary work of the Institute. This, I admit, would be a result which we should all deplore; but even were it inevitable, which I do not believe, the question might fairly be asked, whether the Papers in a comparatively imperfect form, published shortly after delivery, would not be of more value to members than they now are, issued months later. I am satisfied, however, that the argument to which I have referred is not conclusive, and that there is really no valid reason why the Papers, with their illustrations, and the discussions emanating from them, should not be published together and immediately after delivery. In order to evolve this satisfactory result, it is only necessary that a Committee, say the Literature Standing Committee, should become responsible for providing Papers to be read at our meetings, and that they should so organise their work as to have Papers in hand say three months before they are required to be delivered, instead of receiving them from their authors, as is now too frequently the case, at the last moment. If it be urged that this would be impracticable, and that it would be hopeless to expect authors to produce their Papers so long before they are required, I reply that what is feasible in the case of other publications should be equally so with ours, and I decline to believe that any difficulties would exist which could not readily be overcome by system and organisation. Ample time would thus be secured for revision by the Editor, for printing, and for producing the illustrations beforehand, with the same care and consideration as are now bestowed upon them, so as to be ready for publication within a few days of the date of the meetings.

The advantages attending this proposal are obvious. The Papers and the discussions upon them would be printed once only, and would be published together in a complete and permanent form within a few days of delivery. Members would thus have the whole proceedings to peruse and refer to instead of part only. The convenience of future reference would be facilitated by the Papers and discussions being published in the same volume. The single publication would possess an importance and acquire an influence which under the existing system are unattainable. Lastly, the cost of printing and publishing would be materially reduced, and the income of the Institute would be correspondingly enhanced. I think I do not entertain too sanguine a view when I anticipate a saving of about £500 a year. Thus the consideration of attaining a wider margin between income and expenditure, which I strongly urged in my Address last year, would at once be realised. Important as I consider this consummation, I would certainly not urge the adoption of the change by means of which I propose to effect it, were it to militate against the interests of the Institute; but when, as I believe, the much-desired financial result would be attained by a measure which in other respects would be beneficial, and would tend to promote the usefulness of the Institute, directly to its members, and indirectly to the public, I feel no hesitation in most strongly urging you to accept the suggestion which I venture to submit for your consideration. The present system is not conducive to the convenience of members; it militates against the welfare of the Institute; and I am satisfied, therefore, that the change which I advocate would be an important step in the direction of real progress.

The Duke of Devonshire.

The list of our Honorary Fellows has been enriched by the addition of the name of the Duke of Devonshire, whose courtesy in responding to our request, and lending to the Institute the unique and valuable collection of the original drawings of Palladio, Inigo Jones, and others, a selection from which was exhibited on the walls of this room on the Gold Medal night, we all thoroughly appreciated. Thanks to the trouble ungrudgingly taken by Mr. J. D. Crace and Mr. Wyatt Papworth, the drawings have been arranged in proper order, and they have now been returned to the Duke with the renewed expression of our acknowledgments.

Hon. Secretary.

It is with much regret that the Council have accepted the resignation of Mr. Aston Webb as Honorary Secretary, an office the duties of which he has discharged for more than three years with credit to himself and to the benefit of the Institute. Increasing professional engagements having rendered it difficult for him to attend to the work of the Institute, he decided to resign before the last election of the Council, and only consented at our earnest solicitation to remain for a short time longer on the understanding that he should be allowed to retire before the commencement of the active work of another Session. The regret felt by the Council in parting with so genial and efficient an Honorary Secretary will be fully shared by every member of the Institute, and I trust I may be permitted to express the sense of personal loss which I sustain by his resignation. Had the By-laws permitted it, the Council would have proposed the immediate nomination of Mr. Webb as a Member of Council. This, however, though not possible now, may, I hope, be regarded as only deferred till the next election, when I doubt not his nomination will receive unanimous support; and thus his official connection with the Institute, whose welfare and usefulness he so much desires to promote, would be continued. The only compensation for a loss so real, is the prospect that the office may be filled by a worthy successor; and it is with great satisfaction that I am able to intimate that the Council have been so fortunate as to obtain from Mr. William Emerson the assurance that he will be willing to serve if elected. They have accordingly unanimously nominated him for the vacant office. Mr. Emerson is not unfamiliar with the work, having served for some years as a Member of Council; he is interested in the welfare of the Institute; and he is an architect of position and of ability. I cannot doubt, therefore, that the nomination of the Council will receive the unanimous approval of the Institute.

Capital and Labour.

The great question of Capital and Labour, which engages so much attention in the present day, consequent on the oft-recurring and disastrous strikes of recent years, is one which we architects cannot disregard. Capital and Labour are alike essential to the execution of our designs. Without them we could produce pictorial representations, but not buildings. Hence, the disturbance of amicable relations between them vitally affects our interests. Labour may be congratulated on the manifest desire now exhibited by society to accord to it fair, and even liberal, remuneration. That this may to some extent be attributed to the stand which workmen have by combination and organisation made in defence of their interests, may be fairly conceded. To combination for such legitimate objects, no reasonable person can, or does object; but when trade organisations are used for the purpose of imposing arbitrary restrictions on labour, of depriving the workman of his right as a free citizen to work how and as he pleases, or of arbitrarily reducing the hours of work without a corresponding diminution in wages, such as may be dictated by the law of supply and demand, then it seems to me that the real friend of the working man is not his leader who preaches such pernicious doctrines, opposed alike to political economy and common sense, but rather he who bravely warns him of blind leaders of the blind, who, be their motive what it may, are luring him to inevitable and certain disaster. When last year I was—as your representative—invited to settle by arbitration the differences that then existed between the master builders and the carpenters of London, I did not hesitate when making the award to record my conviction that the result of such action had been to inflict permanent injury on workmen by driving their trade into foreign channels from which it was not likely to return. That this has occurred there is abundant evidence. A significant admission of it was indeed afforded at the Trade Union Congress held in Glasgow in September, when resolutions were proposed with the view of moving Parliament to prohibit the importation of foreign work and foreign labour. It is true that the proposal proved too much even for the Trade Union Congress, who betrayed no nervous hesitation in adopting

any number of resolutions of an advanced socialistic tendency, but it is none the less a sign of the times that such resolutions as I refer to should even have been proposed. That the unsound and unwise policy pursued by the Trade Unionism of to-day, if persisted in, will result in permanently injuring the trade of the country, I firmly believe. The agitation for the statutory restriction of labour to eight hours, or any number of hours arbitrarily fixed, conflicts with the principle of freedom which we have always, and rightly, regarded with pride; it is repulsive to our inborn feelings, and would make slaves of freemen. Man is endowed with energies, with mental and physical powers, not that they may stagnate by limitation, but that they may be used to the utmost in promoting the welfare and comfort of those dependent on him, and the consequent prosperity of the community. No Trade Union, Parliament, or Power, has a right to restrain the energy or restrict the will of any individual. Would that the working men of England would appreciate the danger they incur by limiting their native powers of production, and would see how much better it is to have work on reasonable terms, than to drive it away, and then try by arbitrary and delusive restrictions to spread what is left over the wide area of the unemployed which has been created to a great extent by their own short-sighted folly! Would that we could apply to them the words of Matthew Arnold:

> In their own tasks all their powers pouring,
> These attain the mighty life you see!

A mighty life! because free from pernicious limitations, and characterised by the ceaseless concentration of power and energy which constitute the only real highroad to success. A mighty life! because inspired by teaching which is Divine, to work—and work with might—while it is called to-day. When workmen burst the fetters with which Trade Unionism is surely binding them; when they return to the good old days of freedom of contract and earnest work; when they recognise, what is as old as the hills, that "in all labour there is profit; but the talk of the lips"—of which we hear so much in these later days—"tendeth only to penury;" then—but not till then—may they expect to emerge from the dismal shade of progressive socialism, and walk in the path of real progress.

Chicago Exhibition.

The World's Fair, which is to be opened at Chicago on the first of next May, promises, in point of magnitude and completeness, to eclipse all previous Exhibitions, remarkable as many of these have been. The site allotted for the purposes of the Exposition comprises the enormous area of 1,037 acres, of which, however, it is probable that only 660 acres will be utilised. The Paris Exposition Universelle of 1889 occupied a site of 173 acres, about one-fourth the size of that of the World's Fair of 1893. The designs of the principal buildings of the Exhibition are the work of different architects, and are said to be "prepared "under such conditions as to secure a harmonious effect." The character of the buildings is classical, and the adoption of one style throughout has, no doubt, facilitated, what might appear the somewhat difficult process of harmonising individuality. Separate buildings are devoted to the fine arts; manufactures and liberal arts; agriculture; machinery; electricity; mines; transportation; and horticulture. The interests of Great Britain have been confided to the care of a Royal Commission, consisting of the Council of the Society of Arts, with H.R.H. the Prince of Wales as President. The labours of organisation are distributed among fourteen committees, irrespective of twenty-three local committees throughout the kingdom. The Fine Arts Committee have issued invitations to a large number of painters, sculptors, and architects to contribute works for exhibition, and these as well as other works of art which may be selected by the Committee will be insured, transported to Chicago and brought back, at the expense of the Royal Commission. Drawings should be delivered at the offices of the Royal Commission, John Street, Adelphi, prior to a date of which due notice will be given probably before the end of the year. The Fine Arts Committee

hope that the exhibition of Architectural Drawings will be such as may be thoroughly representative of the architecture of our day, and worthy of the profession.

Emanuel Hospital.

The retention and preservation of buildings, the antiquity or the design of which imparts to them distinctive interest, must ever command the sympathy and active support of architects. Emanuel Hospital, Westminster, is such a building. It has been much before the public of late, but it had long before engaged the attention of the Standing Committee for Art, and of the Council, of the Institute. So long since as March 1890, when the possible destruction of the building was first contemplated, the Council sought, by influencing the Governors, to secure its preservation, and received from an influential member of that body the assurance that every consideration should be given to the question of saving so interesting a relic of the past. When at a later date it became apparent that the building was in danger of being destroyed, I personally endeavoured, by invoking Parliamentary aid, to avert such a calamity, only however to find that such arguments as I could use, based as they were on the importance of preserving a building of architectural interest, and of retaining open space in a densely populated locality, were not deemed sufficient to outweigh those that were urged in favour of removal. The decision of Mr. Justice Chitty following soon after, and arrived at after patient consideration of the circumstances, demonstrated to my judgment the futility of further action. The protest which subsequently appeared in *The Times*, signed by gentlemen whose names carry weight in the political and artistic world, although commanding my sympathy, seemed to me to come too late to be of any practical value. I much fear, therefore—and I say it with great reluctance—that we must look on the preservation of this interesting—if not unique—example of the architecture of the days of Queen Anne as hopeless, a conclusion which cannot fail to be keenly disappointing to all lovers of art, and peculiarly so to architects.

St. Mary's Woolnoth.

Another interesting building which has this year been threatened with destruction, and which the Council have sought to preserve, is the church of St. Mary Woolnoth, the work, as you all know, of Nicholas Hawksmoor, the pupil and friend of Sir Christopher Wren, and a familiar landmark in the City of London. A Bill was promoted in Parliament by the City and South London Railway Company, in which powers were sought to construct an underground railway through the City, and in the exercise of that artistic instinct which is such an eminently distinguishing characteristic of commercial bodies, the Company, with an amount of consideration which must command our gratitude, selected the only edifice in the immediate neighbourhood possessing architectural interest as the site for their station. The Council again took prompt action. I personally interviewed the authorities, and we thereafter petitioned Parliament, on public as well as on architectural grounds, not to sanction the proposal so far as St. Mary Woolnoth is concerned. The Bill did not reach the Committee stage, but in the event of its being reintroduced our opposition will be renewed. The progressive and destructive spirit illustrated in these cases may commend itself to the severe utilitarianism of the day, but you will, I am sure, concur with me in thinking that the interests of real progress have been promoted by the judicious conservatism which has prompted our action.

Wellington Monument.

With no small satisfaction may we note that the great work of Alfred Stevens—the Wellington Monument—is at length being rescued from the obscurity imposed by the inappropriate position it has occupied for many years, and is now being erected in the site in St. Paul's Cathedral for which it was designed. It will thus be possible for future generations to regard it, alike as a noble monument to the memory of the great soldier it commemorates, and of the great artist by whom it was conceived. For this we have to thank the public spirit and example of the cultured President of the Royal Academy, Sir Frederic Leighton.

New Streets in London.

The projected new thoroughfare from the Strand to Holborn, for the formation of which the London County Council are about to seek Parliamentary powers, appears to have created a good deal of criticism. The scheme has been so long under consideration, and has evidently been so exhaustively dealt with by the Improvement Committee, that the presumption is in favour of the route they propose being the best to meet all the necessities and difficulties of the complex problem. There are those, however, who consider that the suggested street is not required, some who think that as proposed it would not be in the right place, while others again prefer a route the continuation of which across the Thames by means of a new bridge would relieve the traffic of Waterloo Bridge. I do not pretend to have sufficiently studied the subject to be a competent judge, but I should have thought that any one who is in the habit of traversing central London must have been convinced of the necessity of some such main artery as the County Council propose, while I should not advocate the multiplication of bridges across the Thames except on the ground of proved necessity. The idea of diverting the traffic from the north to the east and west at the southern extremity of the proposed street, instead of discharging it at a single point in the busy thoroughfare of the Strand, is a happy thought which ought to conduce to the convenience of the public. The expediency, however, of laying out the street on the central axis of a line drawn northwards from the centre of the Church of St. Mary-le-Strand appears to be open to doubt. The Church of St. Mary was designed, as we know, to be viewed from the west and east, notably the former, where it forms so charming a feature in the street architecture of London ; and from an artistic point of view it is questionable whether it is wise to make it the central feature of a northern thoroughfare, to which it would present a frontage not designed for such a purpose, with the tower and steeple to one side instead of being in the centre of the vista from the north. I am disposed to think that it would be better not thus to accentuate the northern view of the church : and that a happier disposition would possibly be to make Somerset House the central feature by taking a line for the new street a little more to the west than is proposed. There may, however, be difficulties, or objections, of a practical nature to the adoption of such a treatment, and I can only therefore submit the suggestion, with diffidence, for what it is worth. The displacement of population involved in this scheme would necessarily be considerable, and I observe that, with the exception of 470 persons whose work and occupations necessitate their being rehoused on the spot, and of 800 persons whom it is necessary to rehouse within one mile of their present residences, the Committee of the London County Council contemplate the removal of the greater proportion of the working-class population, amounting to about 1,800 persons, to the suburbs. This commends itself to my judgment as wise. While fully appreciating the admirable work done by the several companies who have erected improved artizans' dwellings in different parts of London, I yet think that the solution of the overcrowding of the metropolis is to be found in the encouragement of the working classes to reside in the suburbs, and in providing facilities, by means of railways and tramways, to enable them to do so.

The improvement of the thoroughfares of London, with the view of relieving the congested and ever-increasing traffic, is a subject of vast importance to us both as citizens and architects, and it cannot therefore be debated in any place more appropriately than in this room. Hence I am glad to intimate that a Paper will probably be read here in the early part of next year on London Street Improvements, the idea of which, if I rightly understand it, is to treat the subject on a comprehensive basis, and not with reference to any single district. One is no doubt staggered alike by the magnitude of the problem, and the boldness of the author in undertaking it; but it cannot fail to be of the deepest interest, both to us and to the public.

Should the scheme of the London County Council to which I have referred be carried out, so noble a thoroughfare will afford a worthy field for the display of architectural skill. I observe that in their report the Committee state that the plan which they recommend would enable "the Council to control the architectural elevation of "the new street." Should this mean that the control is to be real—and not visionary, as in the case of Northumberland Avenue—and that it is to be exercised by persons competent to deal with the subject, we may regard the proposal with satisfaction; for, under such conditions, architects need not dread irksome interference with their designs, but those who claim to be so, without—so far as we may judge from their works—justification, would be properly subjected to control from which the public could not fail to derive benefit. It is to be hoped that architects who may be consulted may be inspired by no lesser motive than the endeavour to educate public taste by adorning a public thoroughfare. Our teaching is not that of a book or a parchment, which may be read or cast aside, nor that of a picture, which may be studied or disregarded at pleasure, but it is engraven in a material form which must be seen and read of all men whether they will or not. Would that architects, who undertake to design buildings for important sites and leading thoroughfares, always realised that they incur responsibility, not to their clients only, but to the public also; for such buildings cannot by any possibility remain inoperative; they must exercise some influence for good or for evil on the minds of men, and in proportion as they are inspired by truth and purity, and create correspondingly elevating emotions, are they entitled to rank as works of architecture. Apply this test to one of the most important modern thoroughfares in London. Speaking generally, for there are of course exceptions here as elsewhere, who will say that the structures in Shaftesbury Avenue adorn it, or create emotions in a cultured mind other than those of irritation and disgust? Buildings they are certainly—architecture they as certainly are not. Take another illustration. Who can imagine that the authors of the edifices which have recently been erected on that magnificent thoroughfare the Thames Embankment between Waterloo and Charing Cross bridges, or at Albert Gate, realised the responsibility I speak of? One would have thought inspiration would have been derived from the mere fact of designing buildings for such imposing sites, to say nothing, in the case of the Embankment, of the proximity of Somerset House, to the stately proportions and the simple forms of which the eye turns with relief and refreshment.

We hear much said, and we see much written, of the necessity of educating public taste. Would that the necessity were more generally appreciated! for, with a really educated public taste, it would not be possible to point to so many illustrations demonstrating, alas! the lamentable absence of taste and refinement on the part of many so-called architects. But, while this is too true; while I witness with dismay splendid opportunities absolutely sacrificed, which might have been, and ought to have been, mediums for elevating and refining public taste; yet when I recall, with a chill shiver, the depressing dreariness of an age of stucco and monotony, now happily a thing of the past; when I behold the bright and hopeful advent of an age distinguished by the use of genuine materials; when I appreciate the artistic spirit which unquestionably breathes in much of our domestic work; and when I recognise the undoubted desire of all—whatever their shibboleth—to promote the knowledge of our art, whether by study, practice, examination, or æstheticism; I gladly record my conviction that the architecture of to-day—although falling far short of what we long to see, although exhibiting an exaggerated enthusiasm for the element of quaint picturesqueness which I hope at no distant date to see leavened by the spirit of classic purity and simplicity—is yet not altogether unworthy of the enlightenment of these latter days, nor altogether out of harmony with this age of Progress.

J. Macvicar Anderson.

PROCEEDINGS.

Monday, 7th November 1892.

[Mr. Macvicar Anderson, *President*, in the Chair.]

First General Meeting (Ordinary).

The preliminary business, which included the nomination of candidates for membership, and the announcement of the name of Mr. Watson Hall as having passed the Statutory Examination held last month under the provisions of the Metropolitan Building Act, 1855, was enlivened by an incident connected with the formal admission of new members by the President, who, on Mr. Eustace Balfour coming forward to be admitted as a Fellow, said :—Gentlemen, I have great pleasure in formally admitting Mr. Eustace Balfour, who was elected as a Fellow last Session, and now attends for the first time. (Cheers.) Mr. Balfour's name is well known to many of you, and he requires no introduction. Those of you, however, who have watched the remarkable development of the Duke of Westminster's property in London must be aware of the immense responsibility and importance of the position which Mr. Balfour occupies as Architect to the Duke of Westminster's London Estates. (Hear, hear.) If any further introduction is necessary, I will only add that Mr. Balfour is a brother of the brilliant statesman who bears his name—(loud cheers)—and who in the brief period that he has been before the public has established a reputation which is of the first order, and has already, through his patriotism and statesmanship, conferred lasting benefit upon the country. (Loud cheers.) I must apologise, Mr. Balfour, for keeping you so long standing. I have pleasure in admitting you as a Fellow of the Royal Institute of British Architects, and hope we shall often have the pleasure of seeing you here.

The President then delivered his Address on the opening of another Session [see preceding pages], amid many demonstrations of approval, followed at the close by loud applause.

The Vote of Thanks.

Mr. EUSTACE BALFOUR, M.A. Cantab. [*F.*] Gentlemen, it is a proud task that has been assigned to me to-night, that of having to propose a Vote of Thanks to our President for the extremely brilliant and interesting Address which he has given us. I must say that I individually have been extremely impressed by the ability (if it is not impertinent to use such a word to our President), and by the extraordinary suggestiveness of the Address that we have heard this evening. It is not merely what our President has said, but the problems that he has raised in our minds, that we ought to consider. Our President spoke of draughtsmanship, and I think he alluded in extremely well chosen terms to the fact that a great many men regard draughtsmanship as an end and not as a means. I have met in my own experience men who were first-rate draughtsmen, and who have deceived themselves by their mere ability in that particular art of draughtsmanship. In other words, had it been possible to erect the buildings as they drew them, they would have been beautiful; but, unfortunately, they drew them as they could not be built. A story was told of a very eminent architect that if he could have built his own cross-hatching his buildings would have been splendid. Another point which our President has touched on this evening is the question of architectural competition. It is very often my misfortune to have to be a sort of informal assessor on architectural competitions ; and it has occurred to me that the present system of competitions is absolutely fatal to getting the best results. (Hear, hear.) Our President has already dealt with that in one of his former Addresses. I think that no private individual would be unwise enough to deliberately commit himself to the acceptance of a design when he had previously debarred himself from having private conversation with, and giving instructions to, the man who is making that design ? But yet that is the system under which the present competitions are worked. I was extremely interested in noting that a large number of original drawings belonging to the Duke of Devonshire, chiefly by Inigo Jones, have been brought before the Royal Institute. I had the pleasure myself, some years ago, of selecting many drawings for the Burlington Fine Arts Club; but I observe from what has been said here that there is a large number of other drawings which have not been brought before the Institute. The sets of drawings which have been mentioned here are those that were in the old house at Chiswick and at Devonshire House, belonging to Lord Burlington. There is an enormous collection, in addition, at Chatsworth, which I have had the pleasure of going through ; and if I may suggest it, I think it would be worth while to get those arranged also, and have them properly assorted. May I also add, Sir, perhaps it might be found that in other big houses in England there are large collections of drawings which would be of enormous value if this Institute were to take that question up. (Hear, hear.) As to the labour problems of the day, I do not think it is fully realised by the public in general that all the expense connected with these strikes is coming, not out of the pockets of the architects, and not out of the pockets of the builders, but out of the pockets of the public themselves. We all know that the builders put on a large margin for safety when they think strikes are inevitable. That is a very serious matter; but there is a much more serious matter connected with that subject, to my mind, and that is the disorganisation, the impossibility of any foreman having complete authority over the workmen who are prepared to strike at any moment, which produces bad work. I have met with it myself over and over again, especially during the last two years, and I have actually been told by a foreman, when I have complained of the quality of the bricklaying in London buildings, that he does not dare to tell the bricklayers to carry out my instructions, because, if he did, the whole of the bricklayers would go at once. I think that is a very serious state of things.

Gentlemen, I fear that I have detained you already too long by my few remarks—(No, no)—but I will conclude by proposing a Vote of Thanks to our President for the extremely instructive Address which he has given us. (Cheers.)

Mr. PAUL WATERHOUSE, M.A. Oxon. [*A.*].—Mr. President, Ladies, and Gentlemen, it is with very great pleasure that I find myself permitted to assist in giving something more than the inarticulate expression of applause to the thanks due to our President this evening for the Address which he has just delivered. Let me begin by at once formally seconding the motion which Mr. Balfour has proposed. I am quite aware that an older and a more eloquent man would do it better than myself; but, Sir, perhaps it is fitting that on an occasion of this kind a voice should speak from the body of the Associates—(hear, hear)—a body whose ranks are more numerous than those of the elder body, the Fellows; and may I assure you, Sir, on their behalf, that in point of enthusiasm their thanks are not less cordial. (Hear, hear.) We are aware—proverbially aware—that cats may look at kings, and under the shelter of this analogy an Associate may listen to his President and may thank him. (Laughter.) Whether he may go further and praise him for his Address is an open question; but if you will give me on this occasion the benefit of the doubt, I should like to go further than thanking you, Sir, and I should like to congratulate you on the extreme facility and felicity with which you have touched with so light and able a hand on many subjects which are very near to our welfare as an Institute. (Cheers.) In thanking you for your Address we must not forget to thank you on this occasion for your services as President during the past year—(hear, hear)—and for the bright promise which you give us of your help for the forthcoming Session. It would be unnecessary for me to emphasise any of the points in your Address. To criticise them would be impertinent, and to object to any of them would be impossible; but there are some points in which you would no doubt be glad to feel that there is some definite expression of sympathy among your hearers. You have spoken of Education. As a member of the Architectural Association, I hope you will allow me to formally express our thanks for the way in which you have alluded to the first year of our great experiment. You have alluded to the statistics which our *Brown Book* has put before you in an impartial manner, neither with unkindly criticism nor with prejudiced partiality; and we feel that the words which you have deliberately spoken, words of encouragement and words of satisfaction, are of very great value to us at this moment. (Hear, hear.) With regard to your remarks on the subject of the publications of the Institute, many of us here feel with the deepest satisfaction that you have dealt the death-blow to an anomaly. (Hear, hear.) As one who has seen not much but something of the working of these literary productions, may I say, Sir, that it seems to me eminently satisfactory that such a state of things as you have suggested should be initiated, and that without delay? You have mentioned as the great difficulty in our way that there may be some inconvenience in obtaining sufficiently early the manuscript of the Papers which are to be read to the Institute. Sir, if there is a difficulty there, it is a difficulty which points to a defect, and the sooner that defect is removed the better. (Hear, hear.) It may be a fact that, in the past, Papers have sometimes been delivered here which have not been completed in a literary point of view to the extent which even their own authors would have wished, and it seems to me a great mistake that anybody should come before this Institute with any Paper so prepared that it is not fit for immediate publication. (Hear, hear.) If we require the Papers beforehand, as you suggest, this unsatisfactory condition would be at once removed, and a great deal of the labour of editing would be saved. Only a few words more. You have spoken of false progress and true progress, and you have hinted something about the step which we are about to take in the alteration of the qualifications for the Fellowship. That reminds me, Sir, of the fact that when we meet here annually it is not merely with an idle curiosity to hear some new thing from the Chair, but it is to remember the extent of our body in numbers and our age in point of time. We come here annually, partly to record in our own memories that we have added another year to the life of this Institute. Sir, your speech has been, may I say, something of a Tory speech. (Laughter.) Perhaps we Englishmen are all Tories at heart, though we play at being Liberals, and even Radicals. (Laughter.) At all events, we have all of us a veneration for antiquity, and every year as it finds us here again adds something to the antiquity and to the nobility of this Institute. (Cheers.) When you speak, Sir, of true progress, you remind us that what we have to see to in handing on this Institute to the future is that it is alive, that is, that it is growing. If we look at the past of the Institute we see that many changes have taken place, notably in the introduction and development of the Examination system. Sir, those changes have marked, not revolutions, but growth. (Hear, hear.) Every stage has doubtless had something in it of novelty, but no greater novelty than can arise in the growth of a tree or of a human being; and I believe we are at the present moment on the eve of a change—or perhaps we can hardly call it a change, but a development—which, if it be carried out upon the lines which you have described, will come as naturally upon our former growth as a flower from a bud. (Hear, hear.) Sir, I will add nothing more except to say that I most cordially second the Vote of Thanks which Mr. Balfour has proposed. (Cheers.)

Mr. H. H. LANGSTON [*A.*].—Mr. President, I cordially acquiesce in every word of the Mover and Seconder of the Vote of Thanks to yourself, but there are one or two remarks that I should like to make, which I hope will not be considered out of place. In one instance I noticed that when you were describing the education of the archi-

tect you said that he ought not only to be an artist and a constructor, and not only to have several other qualifications, but you did not add that he ought also to be a man of business. You no doubt thought that it was not necessary to add that. You further indulged in a poetical lament on the fearful failure of any exemplification of architecture in the street known as Shaftesbury Avenue, and on the Thames Embankment. Let us look, Sir, at those streets, and let us then look at Gower Street, and see whether we have not indeed made an advance in education, and certainly in elevation. Let the architects of the present day remember your Address to students last Session, and that they must plan buildings as well as design the faces of buildings; that they must make the people who have to occupy the buildings comfortable, and then we may look forward to architecture being appreciated. You did not draw attention to—although I am sure it was from no wish to conceal it—a point which I think is of very great importance to all the profession; we know that an Act has come into operation which is known as the Public Health Act 1891. It is manifestly our business as architects and professional men to have the conduct and the carrying out of the salient points of that Act in our hands on behalf of our clients; but into whose hands is it going? It is going into the hands of the auctioneer, the estate agent, of the man who can call himself an architect without any proof of his competency such as is given by his holding the certificate of this Institute. The carrying out of the Act is left in the hands of the Medical Officers of Health, and of their subordinates, the Sanitary Inspectors; and I submit that it might well be put forward by you, Sir, in the eminent position you occupy, that it is highly desirable for architects to study that Act for the benefit of their patrons and themselves.

The PRESIDENT. — I feel very grateful, Ladies and Gentlemen, to my friends, Mr. Eustace Balfour and Mr. Paul Waterhouse, for the kind words—much too kind—which they have used in putting before you this Vote of Thanks. I am aware that all Votes of Thanks are to a certain extent formal—(no, no)—but I hope you will not think me foolish if I am old-fashioned enough to believe that even in these days of progress the manner in which you have received the motion shows that you adopt it as an expression of genuine and unaffected goodwill. (Cheers.) I therefore thank you very heartily for this renewed expression of your confidence. Before the business of this Meeting closes I want to refer to the election of the Honorary Secretary. We have taken the first step specified by the by-laws of issuing notice papers. Following upon that, in the event of other nominations being made, we are required under the by-laws to go through the same procedure as is followed in the case of the election of the Council. Now, inasmuch as no other nominations have been made, it seems absurd to go through all this procedure for the sake of putting one name before you—(cheers)—and the Council are of opinion that we need simply call a Special General Meeting this day fortnight for the purpose of electing Mr. William Emerson as Honorary Secretary. (Cheers.)

MINUTES. I.

At the First General Meeting (Ordinary) of the Session 1892–93, held on Monday, the 7th inst., at 8 p.m., Mr. J. Macvicar Anderson, *President*, in the chair, with 56 Fellows (including 15 members of the Council), 51 Associates (including 2 members of the Council), 2 Hon. Associates, and several visitors, the Minutes of the Business Meeting held on the 11th July 1892 [see *The R.I.B.A. Journal*, Vol. VIII. p. 390] were taken as read, and signed as correct.

The following candidates for membership, whose nomination had been previously approved by the Council, were recommended for admission:—As FELLOWS [F.R.I.B.A.], Henry White (Penzance), Herbert Frederick Tomalin [*A.*], F.G.S., Assoc. M.Inst.C.E. (Ceylon), Paul Ogden [*A.*] (Manchester), Charles Steward Smith [*A.*] (Reading), John Evelyn Trollope [*A.*], Samuel James Newman (Northampton), Arthur William Brewill (Nottingham), Richard Harris Hill, M.Inst. C.E., Charles William Bevis (Southsea), William Ravenscroft (Reading), William James Morley (Bradford and Bolton), Stephen Salter, jun. (Ryde), George Henry Jeffery (Florence); as ASSOCIATES [A.R.I.B.A.], Alfred Charles Houston, Robert John Angel (Birkenhead), Frank Morrish Harvey, Ernest Harrison Jones (Liverpool), Matthew Starmer Hack, Alfred Wickham Jarvis, James Paxton, Albert William Cleaver, George McLean Ford, Thomas Gildart Mansell (Birmingham), Robert Alexander Reid; and as HON. CORR. MEMBER, Professor Charles Babcock (Cornell University, Ithaca, N.Y.).

The President announced that at a Statutory Examination held on the 27th and 28th ult., five candidates presented themselves for examination under the Metropolitan Building Act 1855, one of whom obtained a Certificate of Competency to act as District Surveyor in London, namely: Mr. Watson Hall, 51, Tynemouth Road, Tottenham, N. One candidate also presented himself for examination under Local Acts, but did not pass.

The following members, attending for the first time since their election, were formally admitted, and signed the Registers of Fellows and Associates respectively, namely:—Eustace James Anthony Balfour, M.A. Cantab., John Thomas Lee, *Fellows*; and Robert Stephen Ayling, William Grace, Herbert Passmore, *Associates*.

The Opening Address of the Session having been delivered by Mr. J. Macvicar Anderson, *President*, it was, on the motion of Mr. Eustace Balfour, M.A. Cantab. [*F.*], seconded by Mr. Paul Waterhouse, M.A. Oxon. [*A.*], and supported by Mr. H. H. Langston [*A.*]

RESOLVED, that the thanks of the Institute be recorded to the President for his Address.

Mr. Anderson having acknowledged the compliment, the proceedings terminated at 9.50 p.m.

REVIEWS. II.

(4.)

BOKERLY AND THE WANSDYKE.

Excavations in Bokerly and Wansdyke, Dorset and Wilts, 1888–1891, *by Lieutenant-General Pitt-Rivers, D.C.L., F.R.S., F.S.A., Inspector of Ancient Monuments in Great Britain, &c., with observations on the Human Remains, by T. G. Garson, M.D. Vol. III.* [*Privately printed*, 1892.]

Lieut.-General Pitt-Rivers, in the large folio volume which he has presented to the Library of the Institute, has rendered a double service with regard to the elucidation of the early history of Britain. Not only has he undertaken and carried to a successful termination a series of investigations entirely at his own expense, but he has set forth the results in the handsome volume now given into the hands of all students likely to be interested in the results. This work consists of 308 pages, besides preface, &c., and is enriched by 73 elaborate plates and maps, with a few woodcuts in the text. It is preceded by a portrait of the author, to whom we are indebted alike for the costly researches and for the no less costly volume.

Although this is actually the third volume issued by General Pitt-Rivers, to record the results of various discoveries made by him in Dorset, yet its subject relates to the researches made on the line of the ancient Rampart known as Bokerly Ditch, and of the similar and better known Wansdyke. The former of these ancient works extends from a short distance from Blaydon Hill in an irregular course to the north-west, until it is lost in what was once part of Cranborne Chase, the commencement having been originally at the ending of Holt Forest, the course thus connecting two wooded districts, through which the defences in their apparent form did not go. The denseness of the forests is supposed to have been sufficient to prevent the passage of an armed foe from the east and north, and the entire extent of the earthworks in the open country is about four miles and three-quarters. Traces of early settlement abound in the district, on both sides of the ditch, the latter forming the present line of boundary between Wilts and Dorset along nearly its whole extent.

Various hypotheses as to the origin of this earthwork have been urged by various explorers, and a date at least anterior to Roman times has generally been accepted as probable, especially with regard to the Wansdyke, and many other detached lines of defence which are drawn across valleys, or to divide the level tops of hills, common in the locality.

Lieut.-General Pitt-Rivers has thrown a vast amount of light upon the question of the age of these works, by means of excavation, a process which at once brings forward new facts in place of conjecture, and which has set the question of the age of a portion of this work beyond the shadow of a doubt. The results obtained by the pickaxe and spade on other sites at no great distance, which had been previously investigated, were so important and encouraging, that so interesting an object as the Bokerly Dyke was not likely to remain for long without being dealt with, and the volume before us is the result. It had long been noted that the Roman road from Old Sarum to Badbury Rings—an important line of communication from London to Silchester, and thence to the west of England through Dorchester—makes a straight course from Old Sarum to the point where it passes Bokerly Ditch, and thence goes straight again to Badbury. The point of junction is the spot selected by the General for the commencement of his labours, rather than at a curious epaulement on the inner side of the rampart, which has been often observed, about two thousand feet from it. The former position promised greater results, especially since, in addition to the change of course in the road on passing the ditch, which seemed to point to some relation of one work to the other, the ditch and rampart both change their direction and assume nearly a parallel course to it as the road approaches.

Various trenches were dug, and unexpected results were obtained. The ground outside the ditch was found to be full of traces of habitations of Romano-British date, with many small drains extending for long distances; hearths, a small hypocaust, and human interments made with little ceremony, were found, the whole being sufficient to show that a settlement of some importance had existed here,—the coins, of which many were found, showing that this had existed from an early to a late period of the Roman occupation.

But exceeding these interesting details in importance is the fact that the pitching of the Roman road is found beneath the rampart, showing that the latter is later than the road. The rampart, too, has been found to contain a vast number of fragments of broken pottery and Roman coins, evidently thrown up from the surface when it was formed, the latest of the coins showing that its construction must indeed have been at the very end of the Roman occupation, if not at a still later period. Here is an overturning of all previously conceived theories in a very unmistakable manner! And the inference is pretty obvious that this great work is likely to have been thrown up by the Romano-British population as a means of resistance against the attacks of the Saxons—for what other foe was there for a peaceful population in the fifth century to require protection from? And according to generally received history, the native population, after the departure of the Romans, were too effeminate to construct a defence like this! But our interest in this discovery is increased by others. The earthwork itself is found to bear traces of alteration, if not of reconstruction, and for a certain length of time to have existed between the two works.

An inner ditch, called the Rear Dyke by our author, which extends for nearly a mile from the point of junction with the Roman road, opens

another subject for inquiry. It is found to be older than the outer rampart, for it was filled up to admit of the crossing of the road, the metalling of which has been revealed above the filling in. While, therefore, the lines of the settlement show that the road was in existence before their formation, and the rampart afterwards erected above it stopping the traffic, yet the inner ditch was in existence before the road. The reason of the bending of the course of the road is not owing, therefore, to the form of the existing ramparts, but to some state of things that has passed away.

The author suggests, with great possibility of correctness, that the Roman station, Vindogladia —"white rampart"—may reasonably be placed here, especially as the distance in the Itinerary agrees with that assigned to it from the next station.

Previous to leaving this interesting spot, General Pitt-Rivers made some excavations at the epaulement, which prove the general correctness of the belief that the rampart originally ended there, the continuation being certainly an addition to older work. The general character of the older portion is, however, so much like the remainder, as to warrant the belief that all parts are of Roman date or later.

Excavations were afterwards made to determine the age of Wansdyke, an earthwork and ditch which extend in an irregular course from near Portishead across Wiltshire, close on to Andover. After a section had been cut through the bank with but uncertain results, a point was selected not far from Bishop's Canning, where the work appeared to pass over another entrenchment, which might reasonably be supposed to be of earlier date. This proved to be the case. The more ancient banks were found beneath the more recent filling in. The earlier work was found to be of Roman date, and the Wansdyke thrown up over it, was proved, not only by its relative position, but by a mass of relics within it and on the original surface level, to be of some date later than the Roman camp. It may be of Roman times or later, although the period cannot be determined so nearly as that of Bokerly, owing to the entire absence of coins here, although found in abundance there.

The book shows on every page evidence of the care that was taken during the progress of the works. The positions of the articles found were noted on accurate drawings which are reproduced. Future explorers may consult its pages with very great advantage, for they show how to conduct works of this nature. When it is considered how large a work this has been, undertaken entirely at the cost of a single individual, without any grant from Government or from any other source, public thanks are certainly due to General Pitt-Rivers for the important historical results that he has obtained. It now remains for others to pursue researches at some of the other lines of earthworks which exist all over England. Close to Bokerly, it has to be remembered, exists Grim's Ditch, and a third unnamed work, which together with the former actually enclose an irregular triangle of land nearly twenty miles in circumference. What is the age of these two works?

E. P. Loftus Brock.

(5.)

SAXON ARCHITECTURE.

On a Pre-Norman Window and some Additional Early Work in Oxford Cathedral. By J. Park Harrison, M.A. [*Henry Frowde, Amen Corner, E.C.*]

Mr. J. H. Parker, in his notes to the last edition of Rickman's *Styles of Architecture in England*, states that Christ Church Cathedral was, between the years 1160 and 1180, "entirely rebuilt from the "foundations;" and adds: "The design of the pre- "sent structure is very remarkable; the lofty arched "recesses, which are carried up over the actual "arches and the triforium, giving the idea of a "subsequent work carried over the older work; "but an examination of the construction shows "that this was not the case, that it was all built "at one time, and that none of it is earlier than "about 1160. . . . . The peculiarity is that the "capitals give the idea of being cut in half: one "half used to carry the arch of the aisles, the "other half to carry the arch of the vault across "the central space."

The present pamphlet is an account of some careful investigations into the masonry of the cathedral, which appear to prove that, instead of the Saxon church having been destroyed, a considerable portion of it was left standing, and only heightened and added to by the Norman prior who remodelled it in 1160. One result of this is an explanation of the curious features mentioned above. Mr. Harrison argues that "the upper "half of the columns and the round arches over "the quasi-triforium openings may have been "additions to a church with lower columns and "arches," and that "the peculiarity of the design "of Oxford Cathedral, and the choir of Tewkes- "bury also, consisting in a lower range of arches "supported on half capitals, may thus be ac- "counted for. It seems more probable than that "so bizarre a design was invented in 1160." Without the opportunity of a fresh personal examination of the work in question, it would be profitless to discuss here the data for these conclusions, but the author certainly makes out a strong case for the fact of the survival *in situ* of important portions of the Saxon building, and his discovery is of much interest for its testimony to the continuity of growth of English architecture, and as adding weight to the view that the Norman Conquest was not so much the *fons et origo* of our national history as till lately it was the fashion to assume. The continuity of English institutions has already been well illustrated by Professor Freeman and Dr. Stubbs, but that of English architecture has hardly yet been given its due importance. The fact of characteristic remains of Saxon masonry having been only just now recognised in a building so well known as Christ Church Cathedral is a great encouragement to the pursuit of archæological research at home, which many people might consider to be a "played-out" occupation.—Arthur Flower.

THE BIRMINGHAM ASSOCIATION.

Mr. W. Hale's Presidential Address.*

As our Association has this year been able, by cordial co-operation with the School of Art, to make fuller, and we trust better, arrangements for the systematic instruction of architectural students, I shall venture for a short time this evening to direct your special attention to the general nature and tendencies of the scheme evolved, and afterwards make a few remarks on architectural education in general.

Hitherto all our classes have been presided over or conducted by volunteers, and each class has been held but once a month during the session; but although it has for some time been felt that this was not affording, by any means, such instruction as an Architectural Association ought to do to assist its younger members and guide their studies, yet the smallness of our income did not warrant a departure from this voluntary system of instruction, which, although good in itself, could not, from the conditions under which it was possible to carry it on at all, be so systematic, or the classes held so frequently as was desirable, from the fact that our Association has comparatively so few members, and from the difficulty, therefore, of obtaining visitors for more frequent classes without trenching unduly on the time of busy men.

After much consideration and unavoidable delays, a scheme was eventually devised and matured, in consultation with Mr. E. R. Taylor, the able head-master of the Birmingham Municipal School of Art; and, aided by the kindly co-operation of the authorities of that school, it now appears in the programmes of the School of Art and this Association.

The monthly classes of Construction and Design hitherto held in connection with this Association alone, on Fridays, alternately every fortnight for each subject, will be continued, but they will be systematised and strengthened as set forth in the Syllabus; and it is hoped that hereafter it may be possible to undertake other classes for the benefit, more especially, of those of our younger members who, not being engaged in Birmingham, could not well avail themselves of the full advantages offered by the special architectural course arranged with the School of Art Committee, and who, moreover, could attend the School of Art classes in the towns wherein they are located. There are other subjects, too, not at present included in our own classes or those of the School of Art, in which it is most desirable that our students should be instructed. The London Architectural Association has classes for Mensuration, Physics, Stresses and Strains, Calculations of Strengths, Chemistry, Natural Philosophy, Land Surveying, Specifications, Quantities, Valuations, and subjects connected with the allied arts. Last year a series of valuable lectures on Stresses and Strains was given, in connection with our Association, by Professor Smith, of Mason College, and doubtless we shall see our way, in the near future, to take up some of the most important of the other subjects connected with the attainment of that knowledge necessary for making a workable design.

The architectural course at the School of Art is divided into four years, and adapted generally to the case of a student going direct from school into an office and working up through the several classes year by year, but, subject to the consent and direction of the head-master, students more advanced may elect to attend any of the classes in any or all of the four years' course. These classes are so arranged that by attending, at most, four evenings and one afternoon weekly, the complete course may be gone through. The one afternoon class is necessary, it being on subjects connected with colour and coloured decoration, and of course daylight is essentially necessary to properly distinguish differences in colour. I have no doubt that architects in practice will fully sympathise with our endeavours and do all they can individually to help on, and enlarge and strengthen, the scheme by encouraging their pupils to join the Association and the Architectural Course in connection with the School of Art; and that they will gladly give them the weekly two hours required in the afternoon during the earlier years, to attend the classes connected with colour. It is impossible for principals as a rule to do more than give general oversight and advice to pupils in their offices, and they will, I am sure, welcome every possible means for assisting them outside.

You will notice that during the fourth year there is no afternoon class, and but three evenings weekly are taken up by advanced classes, it being considered that pupils would not be so easily spared from their offices during a fourth year; and more of their spare time would be required for reading up and studying other subjects to qualify themselves for the practice of their profession.

In arranging this course of progressive classes with the School of Art, and retaining and improving the two most important of our own classes, the Council of the Association felt that they were asking students to devote as much of their time to work after general office hours as would be, as a rule, consistent with a proper regard for health, for reading, general culture, and necessary recreation. It was therefore deemed unadvisable to attempt more at present. If after due trial the scheme should be found to need some modification, in any way, either in respect of subjects or time, it has been so arranged that this may be done. Some subjects, chiefly those based on exact science, require a keener and closer application and concentration of thought than work of a purely artistic nature, and consequently cannot be usefully studied for so long at one time as the latter; and it may be that it will be found desirable to arrange a change of subjects each evening,—an hour at an artistic subject and an hour at a scientific one,—and thus a larger number of subjects may be included either at the School of Art or our own classes. Indeed this may be so now as far as the

* Read at a Meeting of the Birmingham Architectural Association held on Monday 7th inst.

subjects permit, and it may be possible to avail ourselves of some of the classes held in other institutions in the city. . . . . I believe that the scheme which it has been possible for us, in conjunction with the School of Art, to put before you will most materially help our students, as although in most cases no alteration has been made in the usual School of Art Classes, where the teaching is carried on by well-known, tried, and competent masters,—which some architectural pupils have heretofore attended somewhat indiscriminately,—yet the whole have now been systematised in this particular architectural course with the view to assist students in selecting those classes which it would be most profitable for them to join. A most important new class on Architectural History and Design in Building has been added, and meets at 7.15 till 9.15 on every Wednesday evening during the session, extending from the middle of September till the end of June, some few holidays excepted; and it is, I am sure, a matter of the greatest satisfaction to us all that our member, Mr. Bidlake, has been induced to undertake the management of this class and the post of Special Lecturer on subjects with which he is so fully conversant. I am pleased to know that Mr. Bidlake's class is so well attended, and I hope that our students generally will fully avail themselves of all the other advantages which the architectural course in connection with the School of Art undoubtedly offers. By arrangement made with the School of Art Committee the fees for each year's complete course is but 35*s.* to Associate-members of our Association only. I should further like to express the hope that *all* architectural students who attend the Architectural Classes at the School of Art with a view of becoming architects will, at once, join our Association, if there are any who have not done so, for they will have the further advantage of our class of Construction, where, as stated in the Syllabus, practical methods and difficulties are discussed, and students are encouraged to put questions to the presiding Visitor on matters arising out of the subject for the evening's discourse. They could also prepare and send in drawings for the various subjects set forth for our class of Design, and have the advantage of hearing them criticised in detail by the Visitor for the evening; and, further, they would be able to compete for the Association Prizes, and join the summer classes in visiting, sketching, and measuring old work, and in inspecting important works in progress under favourable conditions. . . . . The technical education of an architect should be based on the solid foundation of a sound liberal general education, for if from any cause this foundation has not been well laid it will be, as a rule, more difficult to apply or build up the technical work. What is known by the term general culture will stand a student of architecture in good stead in rendering the acquirements of that knowledge peculiar to our profession the more easy; but more especially will it be of service to the young architect commencing practice, by enabling him to take his proper position in the world.

I suppose it seldom happens that a young man knows for any length of time before leaving school what occupation he will pursue; but if he does, it would be well that his studies should lead up to it, and for the pursuit of architecture he should be encouraged to apply himself more particularly to mathematics, geometry, science, and freehand drawing. On leaving school, if he does not proceed to College to complete his higher education, and at College he might also join the local Architectural Society, and begin to understand something of what architecture has been in the past, a youth usually enters an architect's office for a term of years—generally, I think, too short—and finds a certain amount of freedom from control and of action to which he has been unaccustomed by the discipline observed in all good schools. This freedom soon proves of what stuff a youth is made, and whether he has within him not only the general ability and germs of artistic power, but the strength of mind and power of application which are essential in all who can hope to excel in a profession requiring so many and varied qualifications.

Much controversy goes on from time to time in attempts to define from different points of view what an architect is, and in the remarks I made twelve months ago I hope I convinced you that as architecture was artistic building, and could not be simply artistic appearance divorced from good building, or good building without art, we have therefore to consider what qualifications are necessary to enable a man to produce artistic building before we decide what an architect is. To properly design a building he must be acquainted with the nature and uses of materials and the proper modes of applying them, and be also endowed with a fair share of artistic power; therefore he must have studied, and be well up in, the somewhat dry subjects of construction as well as the more pleasing ones of drawing and design; or, let him be ever so clever as a draughtsman or designer, he will fail in some essential as an architect. Aptness to construct and design are doubtless among the natural gifts with which man is endowed, and in the thoroughly capable architect both these gifts should be well balanced so that each and every design should be constructive, and no piece of construction, even the simplest, should it be possible for him to evolve from his brain uninfluenced by true art feeling. This may be a high ideal which I fear it is not always possible to carry out as we might like in this utilitarian age, but it is well to have a high aim, for thereby our work is likely to improve in quality and originality, and so gain in vitality.

Education, of course, draws out and enables us to exert to the best advantage our natural talents, the feeblest of which would otherwise lie uselessly dormant, and the most active often be wasted in unproductive effort, if not trained, exercised, and guided aright. But, after taking every advantage of the educational means now possible to him, how is a young man to know whether he has

indeed appreciated and assimilated the knowledge placed before him? The reply is nowadays by submitting himself to an examination. It has, however, been objected by men of the highest position among us that no examination can prove that a man is a capable architect fit to be trusted with the erection of a building. Of course, examination cannot give experience, but, if properly conducted, it does give a young man a definite idea whether he has or has not grasped the theories and, I am glad to say, by the instruction possible now, the practical application of those theories in which he has been instructed. But examination, though admitted to be possibly of some use as far as scientific subjects are concerned, and for testing a man's general knowledge and common sense (the latter a very important factor in making a capable architect), is said to be useless when applied to questions of pure art or design. But why can it not be applied to these subjects? Given a subject for design under certain conditions likely to occur in actual practice, surely if such design were examined by competent judges, they could decide whether it showed real power of design or was draughtsmanship only; and surely also we have no lack of competent judges who would give their opinion irrespective of their own possible predilection for what it has been usual to call style. For although art has no fixed rules, it being a matter of feeling, still there are leading principles which sensibly or insensibly guide all artists. And further, I do not see why such an examination, in addition to informing students whether they have or have not studied to good purpose, should not give satisfaction to the public in committing a first commission to one who has passed, rather than to one who could have had no means whatever of proving in any way his capacity for the work. It is idle to say that a man's worth must be proved by his works, and not to judge of his merits by the only work he had, so far, the opportunity of doing. Self-taught or exceptional geniuses are comparatively few, but these find a way of their own for coming to the front. After an architect has been in practice a little time, no doubt his works and general reputation are the best test of his ability. It seems to me, therefore, that all students would do wisely in carrying on their studies with a view to passing the Progressive Examinations of the Royal Institute of British Architects. And let them not be deterred if they fail to pass at their first attempts; it is the application and research that do them good. Should their work not have been thorough, which the examination will prove, they will be the better for being "relegated to "their studies" for a time.

I should like just to say a word or two with reference to drawings. Making a pretty drawing has great fascination, and I am afraid the public are often taken in by what is called a pretty drawing. I do not decry all pretty drawings, but I would guard you from preparing untruthful drawings, which some pretty drawings undoubtedly are. We see nowadays views of new buildings with all the tints and picturesqueness of irregular and broken lines and artistic appearances which age alone can give, and I have often been struck by the uninteresting appearance of a building itself after having seen what purported to be a view of it. Is not too much time also often spent on a drawing? I do not say always, for good drawings are necessary, and I suppose at no time has draughtsmanship stood higher than at the present day; but drawing itself is not designing, and students have so much to learn that I hope the few words I have said on this subject will lead them to give the matter their attention. . . . .—Wm. Hale.

QUESTIONS OF THE HOUR.*

. . . . A great change is taking place. . . . The country is being studded with technical schools, but whether this will lead to an improved technique, or the development of a race of prigs, only time can show. Something was wanting to meet the demand for more knowledge. We have been plunging about in a wild manner to find out how to satisfy this longing, and finally discover that technical education is the universal panacea which is to bring back our manufacturing pre-eminence, now being rudely shaken by the "foreigner." Being intensely patriotic, I hope of course that the objectionable "foreigner" will appreciate our efforts and retire from the field discomfited. When he does that, we may perhaps be able to consider this recondite question: *What will be the effect of technical education on the jerry-builder?*

When a man really wants to improve his lot—but then a jerry-builder always wants to improve his "lot" by putting indifferent bricks and worse mortar in it—there is some hope for him. To such, technical education may provide something which he lacks. A jerry-builder, however, is in a different category. It is difficult to see in what way technical education can improve a man whose sole object in life seems to be to do things badly. Here is the *crux*. Will not the technical schools, by turning out men and boys of superficial knowledge, supply the "jerry" with the very human material he wants—or is he better supplied from the present dense ignorance of the masses? Human nature is very curious. I know of people, honestly enthusiastic about technical education and the wonders it is to effect, who practically, when any work has to be done, put it in the hands of indifferent, nay, sometimes jerry-tradesmen. For myself I want more light; I feel quite in the dark on these points. My own education has gone on in such very different lines that I feel particularly incompetent to give any answer to the question asked. There is, however, one thing I feel pretty sure about—and am therefore probably wrong—*Education raises the general level of intelligence.*

Singularly enough, pioneers in all sorts of sciences and arts more often than not have positively no advantages to start with. Is this one of the conditions that we are to do away with

* Extracts from a Paper read before the Liverpool Architectural Society on Monday 7th inst.

when the old order giveth place to the new? Then, perhaps, all our great men will arise out of the much educated classes. It may be, but I doubt it. It may with reason be contended that genius may be left to educate itself, and if we succeed in raising the general plane of society, that is sufficient. Should our struggling and plunging with these educational difficulties end happily, the question that presents itself to the architectural mind is: *What influence will raising the plane of education have upon architecture?*

Architecture is conditioned by its environment. The true principles of architecture are the same now as they were three thousand years ago, yet what wonderful phases has it not gone through! Ancient art is not the subject of this Paper; it has been dwelt upon many a time and oft by abler hands than mine, but within the limits of my own experience I may be allowed to speak. When first I began to study architecture there were supposed to be certain rules attaching to each style which could not be violated with impunity. Tracing the ideas to their final cause this purism meant copyism. When I began to think for myself, I failed to see the logic of this theory of art, and I attacked it in the pages of *The Builder* and elsewhere in a pretty free manner. I was, in fact, in those early days dubbed by one of the journals of the day, "the art prophet from "Liverpool,"—as if anything good could come out of Liverpool, especially in the way of art. The ideas then in the ascendant were that we should take a certain well known style as a point of departure, the thirteenth-century Gothic, for instance, and develop it with the object of eventually arriving at something new. Unfortunately, those who acted on this advice were like a class of trains in *Bradshaw*, humorously described by *Punch* as "starting but never arriving." Very few got any distance from the point of departure, until at last architects became so sick of the repetitions of those ancient forms that they plunged into the freer style that does not disdain to mix up forms and take suggestions from any of the styles, with appropriate modifications and harmonising links to suit the features to their new purposes. Perhaps if more had been known of the laws of evolution—but the word was hardly known then—we should have been saved the loss of time in harking back. I knew nothing of the science of evolution then, but common sense urged this view of the logic of the Gothicists:—"You are choosing a style that had run its natural "course to maturity and decadence in the middle "of its development. How, then, is it possible to "develop the style into a living style without "grafting something new upon it?" The answer came that it was not possible. Practically the principles then enunciated by me in the journals, and in the *Suggestions for the Formation of a new Style of Architecture* [Weale, London], have been since followed, and, as I think, with very happy results. Thus "the art prophet from Liverpool"—though he made no claim to that *rôle*—was more nearly on the right track than the Gothic revivalists. He does not claim this as the result of his teaching, for it was not accepted, but the efforts of clever men in their attempts to work out modern problems have shown that the view he took over thirty years ago was the right one.

But what has all this to do with raising the plane of education, and its effect on architecture? Raising the plane of education does not necessarily mean implanting artistic feelings in people. But architecture is an intellectual art, and can be better appreciated by the educated than the uneducated. A new form, or a new treatment of an old subject, even if good, does not always meet with the approval of those who ought to know. The fact is, we are more creatures of habit than we care to admit, and unless the reason of the change is evident, any serious departure, it seems *prima facie* wrong to the uninstructed. It is very singular what erroneous ideas of architectural art prevail, even among the well informed, and how difficult, nay impossible, it is for the ordinary man to realise the meaning of a plan and elevation, and what ridiculous quesions are asked of the architect. Within my own experience members of building committees who have settled certain plans, have, by the questions asked during the progress of the work, shown clearly that they have only in the vaguest way grasped what the plans have meant. There is of course a vast difference in individuals; some seem to read a plan without effort, even with very little experience—here, in fact, we have the architect in the chrysalis condition. I confess myself unable to answer my own question. Raising the intelligence of people seems somehow to lead them into the hands of the speculative builder as far as their domiciles are concerned. According to my experience there are much fewer houses designed and built for the owners to live in than formerly. This arises from the fact that a really well-built architecturally-designed house does not command the price it ought to do, and that the public ideas as regards convenience and price seem to be met by the speculative builder better than by the architect. An intending purchaser seems rarely to ask himself if a house is well-built, has a sound roof and good plumbing-work, whether the drains are well arranged or in order. He simply buys the house, and spends the remainder of his life in contentedly patching it up—or, I should rather say, while he lives in it, for changes are so frequent nowadays that he may not enjoy it for more than a few years. My own belief is that this frequent change of domicile has much to answer for as regards bad domestic architecture. This is one phase of the educational problem as regards architecture, and, strangely enough, many persons with artistic perceptions seem to have no objection to live in ugly houses. They are more concerned with other people's houses being made artistically perfect, possibly because they see more of the outsides of them than their own, and because they can indulge their taste regardless of expense. On the whole, then, I feel quite unable to say what education will do for art; but it is quite

certain that scientific education is not sufficient for the appreciation of architecture.

Influence of New Conditions and New Inventions on Architecture.—The most hopeful look-out for architecture lies in the increasingly complex relations of civic life. If any building other than a private domicile is to be erected, and especially by a combined effort, an architect becomes a necessity. Complexity and individuality of wants here effectually prevent the speculative builder shouldering out the architect. Besides, a company, a club, a charitable institution, a School Board or County Council, must depute responsibility to some one; and although in a few cases individual members hate architects, because, after work is let, they cannot interfere much with the architect or his plans, they succumb to the inevitable. The problems of planning are also recognised as being too difficult for the lay mind, so that an architect, if he can only provide accommodation for the money—no easy matter nowadays—has things pretty much his own way. This is the architect's opportunity, and if he does not use it effectively it is his own fault. . . . It is in the motive, the grouping, and detail, the selection and characteristic treatment of materials, that architecture appeals to the artistic feelings of the human mind. It is here that conquests are made; but, unless the conceptions are united to a sound basis of planning, construction, and sound building, they are thrown away. It is here also that the architect has most scope for originality, and I am pleased to confess that the fetters once taken off the architectural designer, he has of late distinguished himself very much. . . . The architect of the day is what the Americans expressively term "a live man." He is a distinct improvement on his predecessors as regards the beauty of his works, and there appears to be no reason why architecture, now free from early trammels, should not progress towards greater unity of practice. I am distinctly of opinion that he must be a scientific man as well as an artist, and there is no reason why scientific tastes and business capacities should dull his imagination. Together with this architectural development, and running parallel with it, is the degradational effect of the speculative builder, who is also a "live man," though, if we may believe *Punch*, he causes the deaths of thousands and his victims are millions. The worst of it, from an architectural point of view, is that the mischief does not stop here. He effects a down-grade influence on work generally. In my own experience I find a growing repugnance on the part of many people against good work. "Are you building for eternity?" is a common question, when one is really only complying with by-laws as to thickness of walls, with one's own idea of good work in the way it is executed. It matters not if one can show that the work is being done at the same price as inferior work—*being good*, it is looked upon as *prima facie* dear. For my own part, I pay no heed to these remarks; but, undoubtedly, these growing views make it increasingly difficult to ensure good work. . . .

T. Mellard Reade.

LEGAL & PARLIAMENTARY NOTES.

What is a Warehouse under the Act?

The case of Mr. Frederick Wallen, District Surveyor for West St. Pancras, against Messrs. Holland & Hannen, builders, in respect of premises erected for Messrs. Shoolbred in Grafton Street, Tottenham Court Road, is a very important one for architects. The points in dispute crop up every day, and a final decision, one way or the other, is much to be desired. An appeal has been lodged in this case, and no doubt Messrs. Shoolbred will not rest satisfied until the highest tribunal has pronounced them right or wrong.

One element in this dispute presses closely upon the heels of all architects and builders in their dealings with District Surveyors, and that is, When may a breach of the provisions of the Building Act be said to have commenced? Here Mr. Hovenden, the architect, submitted his plans to Mr. Wallen in April last, but not until October were Messrs. Holland & Hannen summoned before the magistrate for an infringement of the Act; that is to say, that when the building was far on towards completion, and alterations to satisfy the Act or the magistrate would be expensive, if not impossible, the District Surveyor stepped in to do that which, apparently, he could have done when the drawings were submitted, or at all events when the first thickness of wall appeared above ground. There is no doubt whatever, at all events in my mind, that the clear duty of a District Surveyor is to stop infringements in progress at the very earliest stage, and if that very earliest stage is not before the works are started, it certainly is when the breach shows itself in bricks and mortar. In this case the application was made for a building of the dwelling-house class, and the walls were of the thickness required for that class. Here, then, at least the architect might have been told at once, "I consider your "building to be of the warehouse class, and shall "immediately proceed against you if you build "the walls of less than the required thickness, or "if the building contains more than 216,000 cubic "feet." Thus, much trouble and expense would have been saved.

At the hearing before Mr. Vaughan, at Bow Street, on the 4th ult., the summons was for infringing Section 27, Sub-section 4, of the Metropolitan Building Act, by erecting an additional building containing more than 216,000 cubic feet, and omitting to divide it by party-walls in such a manner that the contents of each division should not exceed that number of cubic feet.

The building referred to consists of basement, ground, first, second, third, fourth, and fifth floors, the lower floors being used for the purposes of the usual retail trade of Messrs. Shoolbred, and the upper floors for dining-rooms, lavatories, kitchens, &c., in connection with their establishment. At the fourth-floor level the floor is of fireproof material, and originally this horizontal fireproof division was urged as an equivalent to a party-wall, such having been decided to be so, four o five years ago, in another part of Messrs. Shool-

bred's premises. Mr. Vaughan, however, in his judgment, delivered on November 1st, does not refer to this part of the case, but contents himself with the question whether or not the building comes under the warehouse or the dwelling-house class.

Sub-section 4 of Section 27 of the Act is as follows:—"Every warehouse, or other building "used either wholly or in part for the purposes "of trade or manufacture, containing more than "216,000 cubic feet, shall be divided by party-"walls in such manner that the contents of each "division thereof shall not exceed the above-"mentioned number of cubic feet."

Now, asks Mr. Vaughan, is this a building to be used either wholly or in part for the purposes of trade? and his answer is in the affirmative. But he proceeds to the definition of a dwelling-house, and quotes the *Imperial Dictionary*, wherein a dwelling-house is described as a house intended to be occupied as a residence, in contra-distinction to a place of business, office, or other building.

The building is stated to contain 272,800 cubic feet, exclusive of the staircase, which contains 16,656 cubic feet additional, and the cubical contents of the rooms above the fireproof floor are 62,087 feet. There are openings for lifts, which pass up through the building and above the fire-proof floor. The walls of the staircase are of the proper thickness as party-walls, and the openings on each floor have double iron doors.

Then, proceeds Mr. Vaughan, "is this build-"ing so constructed as to contain more than "216,000 cubic feet? and if it does, is it so "divided by party-walls as that each division "shall not contain more than that number of "cubic feet? In no sense," replies Mr. Vaughan, "can it be said that the statutory provision has "been complied with," and he orders that the irregularities complained of shall be amended, consenting, however, to state a case, the result of which will be looked forward to with much interest.

It will be seen that if the 62,087 feet are deducted from the 272,800 feet the remainder is 210,713 feet, and therefore *under* the statutory provision; and if the fireproof floor is made of a thickness equal to that which would be required if the division were vertical, the question as to whether this horizontal division does or does not form an equivalent to a vertical one becomes important. No doubt the lift-holes would have to stop at the fourth-floor level, and if this point as to the horizontal division is raised in the appeal it is to be hoped that the decision will be sufficiently clear and unqualified as to render doubt in the future impossible.

The question, however, must arise in the future as to whether the large hotels with shops under them, the vast blocks of flats with shops under them, and other similar structures, will not come under the warehouse class if it be decided that Messrs. Shoolbred's premises do; and I need hardly say that if such is the ultimate decision, architects will have to be very careful in designing such buildings as regards thickness of walls and party-wall divisions, and they must never lose sight of the 216,000 cubic feet.

The power given under the London County Council (General Powers) Act, 1890, to (with the consent of the Council) construct a building containing not more than 450,000 cubic feet, without being divided by party-walls, is confined, it will be remembered, to buildings not exceeding sixty feet in height.—Wm. Woodward.

THE KALENDAR 1892–93.

Register of Subscribing members: Errata.

Page 73.—Harris: Edward Swinfen, Stony Stratford; his London address [32, Craven Street, Strand, W.C.] has been omitted.

Page 87.—Buckle: James George; his address [76, Shelgate Road, Battersea Rise, S.W.] has been omitted.

Page 90.—Garbutt: Matthew, 10, Marlborough Hill, St. John's Wood, N.W.; incorrectly inserted a "10, Marlborough *Road*."

Page 97.—The words "City Surveyor" should have been inserted after the name of Mr. Andrew Murray, instead of after that of Mr. John Murray, and the latter gentleman is not a Fellow of the Surveyors' Institution, as the affix "F.S.I.," inadvertently added to his name, implies.

Page 105.—Worthington: Percy Scott, M.A.Oxon. (*Inst. Medallist* 1889), Lombard Chambers, 46, Brown Street, Manchester; incorrectly inserted as "Lombard Chambers, 16, *Finsbury Circus*, E.C."

Page 109.—In the "Local Distribution of Sub-"scribing Members (Home)," the name of Mr. Oliver Caldwell [*F.*] of Penzance is incorrectly placed under "Cheshire," and that of Mr. G. E. Thoms [*A.*] of Birkenhead under "Cornwall"—an inadvertent transposition.

Page 116.—The name of Mr. R. Langton Cole [*A.*], of 2, Shorter's Court, Throgmorton Street, E.C., and Loughrigg, Sutton, Surrey, has been carelessly omitted from the "Local Distribution" of members, under "London and Neighbourhood."

In future, all changes of address will, as soon as they are received from members, be published on the last page of this Journal, the next issue of which will contain the alterations sent in since the recently-issued *Kalendar* was printed.

The late Mr. James Fowler.—Mr. Wyatt Papworth writes as follows:—In the Obituary (p. 20 *ante*), it is stated that Mr. Fowler measured the well known tower and spire of the parish church of Louth, "which is 300 ft. high." But he did more than this, for he published it in a large form, thus adding a very valuable contribution to the many illustrations of the ancient style of this land. The total height is written "294 feet from the floor of the church," the plate was published in 1852. In *The Architect* of last week (p. 267) is the reprint of a Paper, attributed to "Fowler of Louth." I hear that this is a mistake, and that it was delivered at Somerset House by another James Fowler, of Wakefield.

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VOL. IX. NEW SERIES — No. 3 — 24 NOVEMBER 1892

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THE INTERMEDIATE EXAMINATION, NOVEMBER 1892.

Presidential Statement to the General Meeting, Monday, 21st November 1892.

GENTLEMEN,—An Intermediate Examination to qualify for Registration as Student of the Royal Institute of British Architects was held in these rooms on Tuesday, Wednesday, and Thursday of last week. Thirty probationers applied to be admitted to it, and the applications of twenty-four (five of whom had been relegated to their studies on previous occasions) were approved. Of these twenty-four probationers, thirteen have passed, and are now registered as Students; eight others are relegated to their studies in all subjects of the Intermediate Examination, and the remaining three in certain subjects. The thirteen passed candidates, placed by the Board of Examiners in order of merit, are—

Harold Clapham LANDER	Rockhurst, Tunbridge Wells.
Alfred Edward CORBETT	64, Murray Street, Higher Broughton, Manchester.
John KIRKLAND, jun.	11, Grove Road, Brixton, S.W.
Herbert BULMAN	26, The Crescent, Beech Hill Park, Barnet.
Gilbert Wilson FRASER	34, Balliol Road, Booth, Liverpool.
George Churchus LAWRENCE	Lynnwood, Tyndall's Park, Clifton, Bristol.
Alexander Robert HENNELL	Oakwood, Mayow Road, Forest Hill, S.E.
Isaac TAYLOR	2, St. Anne's Churchyard, Manchester.
Harold Edmund CHURCH	43, Hamilton Road, Highbury, N.
Harold BAILEY	21, Dorchester Place, N.W.
Frank Brookhouse DUNKERLEY	Hurst Dale, Bowdon, Cheshire.
Richard Croft JAMES	42, Alma Vale Road, Clifton, Bristol.
Edwin NICHOLSON	2, White Ladies Road, Clifton, Bristol.

The first registration of Students of the Institute, under its Charter of 1887, took place just two years ago, and the number of Students is now 54. The "testi-"monies of study" submitted by all these gentlemen were in some instances so excellent that the Council have decided to exhibit a selection of them in January, when the annual exhibition of Prize drawings takes place. At the same time there are other instances in which, in the opinion of the Examiners, the required knowledge and care have been conspicuously absent from the "testimonies" submitted. Indeed,

it is in preparing for the Intermediate Examination that the necessity for close study is most real, and the avoidance of what is known as "cram" most necessary. Probationers, if they are to satisfy the Examiners, must cultivate excellence of delineation in the testimonies of study they submit—evidence of exactness and truth, as well as of knowledge, being absolutely essential to success.—J. Macvicar Anderson.

SESSIONAL NOTES.

Examination in Architecture.

Fifty applications (of which ten are from relegated candidates) were received for admission to the Autumn Examination qualifying for candidature as Associate; and forty of the applicants (thirty-one of whom have never been up before) were admitted. The Examination of the forty takes place next week in the rooms of the Institute, beginning on Monday the 28th inst., at 2 p.m., and lasting, without doubt, until late on the following Saturday.

Greater Britain in London.

Not the least interesting, nor perhaps the least embarrassing sometimes, of the duties which fall upon the Institute, is the reception of those who from various parts of the world, across oceans and continents, walk into its Office with as little unconcern as if they had merely stepped in from an adjoining street. Unlike the young Columbian who had realised that his home was in the "setting sun," the officers of the Institute are constantly being reminded of the many and distant homes of that Empire on which "the sun never "sets." Young men, black, brown, and yellow, each in his bearing not unconscious of his claim to say "Civis Britannicus sum," present themselves with confidence and are received with pleasure; and many of those from whom it might be least expected, express themselves in language which for correctness and polish is not always equalled by young aspirants born nearer the imperial centre, who are similarly desirous of qualifying for the profession of architecture. From the coast of Africa comes, perhaps, a young man of very dark exterior, who when asked submits his testimonials from European schoolmasters, engineers, priests or parsons; and having obtained the information he seeks, bows himself out with a grace that brown and yellow men might emulate. India sends eligible candidates, both native and European, for examination and membership; and, just outside the Indian borders, Siam labours to give her sons an English education not only in Law and Physic, but also in Architecture—while, but a short time since, a Japanese subject, having passed the Examination, was admitted an Associate. As for those who pop in from Sydney, or Melbourne, or Brisbane, or Adelaide, they arouse less curiosity than a visitor from Iceland or the Isle of Man, for they are numerous; and Australia is quite an old group of colonies—the oldest being older than any men now living. Greater antiquity pertains to Canada, yet young men fresh from its cities gravely state that they have passed the examinations of the Ontario Association of Architects, and then it is impossible to do otherwise than greet them with a respectful obeisance. Every one knew that a Royal Institute examined in Melbourne, and that a newly organised and admirably constituted body in Sydney was only waiting for its admission to alliance with the central chartered body in London to inaugurate examination for entrance to its own ranks. But graduates from Canada produce almost a new sensation. To look furtively into *The Canadian Architect and Builder*, where, in the number for last June, was a reprint of the questions set at the "Final" Examination held at Toronto on the 5th, 6th, 7th, and 8th April 1892, was a natural sequel to the fresh revelation. Then the meaning of all this comparatively sudden interest in the parent Institute received elucidation: nothing more than a desire to judge of the progress of examination and its attendant education among architects, to share in some cases the credit and profit with those who had passed both successfully. Wonderful evidence of

the force of example! of the common sense and mutual trust that make all British citizens alike throughout the Empire! Nor can the rest of the English-speaking family be fairly omitted from any account of those who call at 9, Conduit Street. Every now and then letters and messages from architects in the United States—of kindly reminiscence and goodwill—are brought by students and practitioners, who appear from their talk to be quite as interested in the welfare and renown of their old country as its indigenous inhabitants; and they are certainly not less welcome.

British Columbia.

On the 24th of last June there was registered under a "Literary "Societies Act" an absolutely new Institute of Architects, whose Fellows are required under By-law 3 to have attained the age of thirty years, and to have served articles for at least three years to a recognised practitioner, or otherwise satisfy the Council as to their qualifications, and to have been engaged as principals for at least five successive years in the practice of architecture; provided that after the expiration of two years from its registration the Institute shall have power to declare that candidates for Fellowship shall have passed an examination—exactly like Section 3 of the R.I.B.A. Charter. By-law 4, referring to Associates of the new Institute, is also identical with Section 4 of the R.I.B.A. Charter; while the Declarations to be made by both Fellows and Associates are almost word for word the same as those of the British corporate body, with the exception that the newly elected members of the new Institute "make this solemn declaration, conscientiously believing "the same to be true, and by virtue of the 'Act respecting Extrajudicial Oaths,'" the said declaration being made before a Commissioner for taking affidavits. It is, perhaps, needless to add that this new Institute is situate in none of the three divisions of the United Kingdom. Its home, when searched for on a map, seems to be within the frown of Asiatic Russia and of what was once Russian America—to be more precise, British Columbia occupies the greater part of the western coast, when looked at from England, of Canada. The British Columbia Institute of Architects is the newest of many similar bodies which have come into existence during the last quarter of a century. Its Schedule of Practice and Charges, founded upon that of the Institute in London, and declared to be "similar in all respects" to those adopted in the United States, in Kansas, Toronto, Melbourne, &c., divides the usual commission of five per cent. into two equal parts—one half for "all necessary and general "drawings and specifications sufficient for a contract;" and the other for "obtaining "tenders and entering into contract, any ordinary necessary detail drawings and "instructions for execution of works, examination and passing of the accounts, "inclusive of measuring and valuing extras and omissions, general inspection of "work in progress (exclusive of Clerk of Works)." It has also a clause respecting preliminary sketch drawings and estimates for buildings not carried out, for which $1\frac{1}{4}$ per cent. on the estimated cost can be charged; and "for preliminary "sketches, working drawings and specifications in duplicate, and detail drawings for "execution, $3\frac{1}{2}$ per cent. on the estimated cost"—a charge which seems to require explanation, for its object is not clearly expressed. At the end of the Schedule are the words, "I hereby agree that the above shall be the basis of employment," and a line is drawn for the signature, doubtless, of the member—the name of the Hon. Secretary of the British Columbia Institute, Mr. W. Ridgway-Wilson, appearing just above—though there seems to be nothing in the By-laws to compel members to regulate their charges according to the terms of the Schedule in question.

Practitioners in India.

A "Fellow of the Royal Institute of British Architects" having read, in *The Bombay Gazette* of the 20th ult., that the Madras Government had been asked to allow its "Consulting Architect" to prepare designs for a Palace at Jeypore, wrote, on the 24th ult., to the editor of that journal a somewhat emphatic protest against the proposal, and supported his argument by the allegation, which he called a fact, that "the Home Government only the other day set a notable

" example "—to wit, " in binding the highest law officers of the Crown to be content " with their salaries, and not to compete in private practice with the members of the " bar." The " Fellow " is evidently one of the few British architects who have been able, against tremendous odds, to hold their own as private practitioners of architecture in India; and he objects, with a show of reason that should command the sympathy of his brethren at home, to supplementing official salaries by the oblique road of what is euphemistically called an honorarium, but which practically amounts to underselling private practitioners. Such are his words; and he calls upon his brethren in India to press upon the Institute the necessity of appealing to the Secretary of State for the purpose of protecting the unofficial members of the architectural profession in India, adding that if any architect in Her Majesty's Office of Works and Public Buildings were to enrich himself by working for private individuals, he would get but a short shrift from the authorities—which would no doubt be true, should it ever by any possibility happen! *The Bombay Gazette* supports its correspondent throughout, and makes the following extraordinary statement:—" We are informed that there are " several cases in which Government have allowed their officers to accept 'honoraria' " for outside work which should have been left to professional men in private practice. " The instances, we are told, are many in which school and other committees go to " Government, and have their work carried out by Government, simply to save the " architect's fees. The Government, with a strict eye to business, charge a commission " of thirty per cent., or more, on all work done on this eleemosynary principle. The " Government do not share this commission with their architects, having of course " a contract right to dispose as they please of the full time of their employés." The Government of Madras, however, has not yet accorded its sanction to the proposed employment of its Consulting Architect—at least, if *The Bombay Gazette* is rightly informed.

Sessional Papers 1892–93. The eight Ordinary Meetings of the Session usually devoted exclusively to the reading of a Paper or Papers and a discussion thereon, take place on the 5th prox. and the 17th April 1893, under the auspices of the Science Standing Committee; and, on the 27th February and 27th March 1893, under the auspices of the Art Standing Committee. Three others are given up to independent members—namely, Professor Aitchison, who, on the 19th prox., will communicate the opinions of Dr. Dörpfeld on the Hypæthral Temple, and Mr. Penrose will discuss them; Mr. Arthur Cawston, who, on the 30th January 1893, will discourse on " A " Scheme for the General Improvement of the Plan of London "; Professor Baldwin Brown, who, on the 15th May 1893, will give his views on " How to Use Vitruvius "; and one, the 13th February 1893, is still unallotted. The Science Committee, with the aid of Mr. William C. Street and Mr. H. W. Burrows, are to discuss " Some " Problems in Town and City Development " and " Examples of Building Stones "; the Art Committee are to discuss " Terra Cotta " and " Furniture," and they will probably have much to say about Mr. Cawston's Paper on the Plan of London.

News from Paris. The Parisian Journal, *La Semaine des Constructeurs*, of the 19th inst., has a very good summary of the Presidential Address delivered by Mr. Macvicar Anderson on the 7th inst., and some almost too flattering remarks about the publications of the Institute. It also contains the full text of a Petition from the Provincial Architectural Societies of France presented, on the 8th inst., to the President of the Senate by M. Deslignières, President of the " Asso- " ciation amicale des Architectes diplomés par le Gouvernement," a petition which includes the following paragraph:—" Dans notre profession on attend, on ne s'offre " pas. Faudra-t-il, désormais, pour réussir, *se mettre dans le manche* des gros entre- " preneurs? Croit-on que dans ces conditions nouvelles les plus dignes seront les plus " pressés de se produire et que les plus intègres seront les plus appuyés par ceux qui " les choisiront et qui devront être surveillés ensuite par leurs protégés? "

PROCEEDINGS.

Monday, 21st November 1892.

[Mr. Macvicar Anderson, *President*, in the Chair.]

Second General Meeting (Business, Special, and General).

The preliminary work of the Business Meeting included the announcement of a large number of Donations and Purchases of Books, among the latter being a copy, procured from Germany, of the original edition of Palladio's Drawings of the Roman Thermæ [see p. 350 of the current volume of TRANSACTIONS], published in 1730 by the Earl of Burlington; and also a few remarks by Mr. Charles Fowler and other members on the Notes of a legal case which appeared in the last issue of *The R.I.B.A. Journal*, and are again referred to by the gentlemen concerned in the present issue [p. 66]. The remarks follow :—

"WHAT IS A WAREHOUSE UNDER THE ACT?"

MR. CHARLES FOWLER [*F.*].—Mr. President, I desire, if I am in order, to call attention to one of the articles in the last issue of *The R.I.B.A. Journal*. I do not know whether this would be the proper time. If I am not in order you will kindly tell me so. [THE PRESIDENT.—Notice, of course, ought to be given; but, as we have not a full programme of business before the Meeting, if you wish to direct attention to the matter I think you may do so.] Although I have ceased to be a district surveyor, having resigned my district, I still take an interest in anything which affects the district surveyors. In reference to a case which occurred recently, in which Messrs. Holland & Hannen, builders, were defendants, some remarks have been made in the article by Mr. Woodward which appear to me to be, in the first place, incorrect, and also as throwing an imputation upon the district surveyor, Mr. Wallen, which I do not think ought to be made in the official Journal of the Institute. The point is shortly this. No doubt you remember the case I refer to, and it will, therefore, not be necessary for me to describe it. It is stated in the article that Mr. Hovenden, the architect, submitted his plans to Mr. Wallen, the district surveyor, in April last, but that not until October were Messrs. Holland & Hannen summoned before the magistrate for an infringement of the Act—that is to say, not until the building was so far towards completion that any alteration to satisfy the magistrate was almost impossible, did the surveyor take proceedings. Now, I have not had any communication from or with Mr. Wallen, therefore I do not know what his action was about it; but I know this, as a late district surveyor—that until an actual infringement of the Act has occurred, no proceedings can be taken. I dare say that when Mr. Hovenden submitted his drawings to Mr. Wallen, Mr. Wallen pointed out anything which struck him as being wrong with regard to the provisions of the Act; but it is not fair to imply, as is done here, that Mr. Wallen deliberately postponed all action in the matter until the work was done, instead of raising the question, as he should have done, before. That is not the case. Anybody who has had anything to do with the working of the Building Act knows that no steps can be taken until the irregularity has been actually committed. That is the first point. The writer goes on to say that "there is no doubt whatever in my mind, however, that the duty of the district surveyor is to "stop infringement in progress at the earliest "stage." That is incorrect. The district surveyor has no power to step in until the infringement has taken place. In this case steps could not be taken until the size of the building had been determined. If Mr. Wallen had attempted to take proceedings when the building was only half up, the magistrate would have decided against him. I submit that the conduct imputed to Mr. Wallen is not rightly so imputed—that he is charged with having caused much trouble which might, and rightly should, have been saved. Now, I do not think that statements of that kind should be made in the official Journal of the Institute. I hope Mr. Woodward, if he is present, or hears of it afterwards, will see that some reparation is due to the district surveyor, Mr. Wallen, for the remarks he has made, and which have been so published. I hope, if you consider what I have stated calls for it, that some notice will be taken of it in the ensuing number of the Journal.

MR. WALLEN [*A.*].—Mr. President and members of the Institute, I had no idea that Mr. Fowler was going to make any remarks upon the subject, and I am very much obliged to him for having done so. But I wish, first of all, to deprecate any discussion upon the question at issue, because it is still *sub judice*—that is to say, notice of appeal has been given, and I do think that when a matter is in that condition it would be much wiser if any remarks were postponed until after the final decision has been given. I do not intend to discuss the merits of the question, but I would like just to point out that there is an entire misapprehension from beginning to end. The note begins: "What is a "Warehouse under the Act?" It goes on throughout to say that I required this building—which is a large shop belonging to Messrs. Shoolbred—to be constructed as a warehouse, and to have the thickness of walls required for warehouses. No such question was raised until the defendants' counsel thought fit to intrude it into the case. The two questions were: First, whether Messrs. Shoolbred's large establishment comes under the description in one of the sections of the Act of "a building used wholly or in part "for the purposes of trade." The other question which followed was whether, when the Building Act prescribes a division by party walls, a horizontal fire-resisting floor is to be taken as a substitute, and as complying with that provision. Therefore the suggestion, which I can quite understand Mr. Woodward having been led to make, that action should have been taken when the first thickness of the walls appeared above

ground was founded upon the mistake that the walls were of insufficient thickness. It was nothing of the kind. All I required them to do was to provide a party wall. Then, in point of fact, the moment the cubical contents began to exceed 216,000 cubic feet, I served my notice, and the proceedings went on. Then the next imputation is that I might have mentioned this to the architect. I recognise entirely the obligation of courtesy to do so, but I am bound to say a more inaccurate imputation was never made. First of all, the architect never submitted his plans to me at all. I got them from the builders at the earliest possible moment. As soon as I did see them, I detected this irregularity, and I wrote both to the builders and to the architect to inform them of it. I urged upon the architect to take some steps to get the matter settled, but he replied that he was confident of his case and would not do what I suggested.

Mr. C. FORSTER HAYWARD, F.S.A. [*F.*].—May I be allowed to say, Sir, that I think the question is, Should our Institute *Journal* be used to promulgate any such insinuations, whether it be with reference to the Building Act or anything else?

The PRESIDENT.—I do not think there is any question of "insinuations" here, although there may have been inaccuracies. I do not think it is desirable that we should drift into a discussion. Mr. Wallen has only just handed in a letter in reference to the subject, and this letter will be published, of course, in the *Journal*; but I should deprecate any such word being used as "insinuation."

Mr. WOODWARD [*A.*].—Mr. President, I do not intend, after your observations, to occupy the meeting with any discussion. I may say that I took great care, before I wrote this note, to communicate with the architect and to go over the building referred to with him. I have also seen the correspondence which took place between Mr. Wallen, the district surveyor, and the architect. Mr. Wallen has told me that he was about to make a communication to this Institute. I have replied that it would be convenient that he should send me a copy of his observations, in order that my reply to his remarks might appear at the same time as those observations. There was no intention on my part to accuse Mr. Wallen of any impropriety, or to make insinuations or impute motives. This matter is of intense interest to architects, and I believe I have a complete reply to Mr. Wallen's observations.

Professor KERR [*F.*].—As a district surveyor, I may say that I am sorry these remarks have been made. I venture to think there is no necessity for this discussion at all. We are very much obliged to Mr. Woodward for the pains he takes in writing these articles in our *Journal*, tinged although they may be occasionally with a perfervid mind. They are exceedingly well done, and he puts his name honestly at the end of them. If there is any mistake, it is Mr. Woodward's mistake; everybody understands that, and I suggest that the present question is one which the Editor of the *Journal* had better not allow to be discussed any further. It is obvious that we do not keep up the *Journal* for purposes of this kind. Mr. Wallen will of course send his explanation and correction; but I would ask Mr. Woodward not to reply—to say nothing more about it.

Election of the Hon. Secretary.

The PRESIDENT.—Gentlemen, you are aware that the Council have nominated Mr. William Emerson to fill the position of Honorary Secretary; and only that name having been put forward, I beg to move, with great pleasure, that Mr. William Emerson be elected Honorary Secretary of the Royal Institute of British Architects.

The motion was seconded by Mr. Charles Barry, and passed by acclamation.

Vote of Thanks to Mr. Aston Webb.

Mr. CHARLES BARRY, F.S.A. [*F.*].—Mr. President and members of the Institute, the duty has been suggested to me, amongst others, of asking the Council, and also the members of the Institute, to pass a Vote of Thanks to Mr. Aston Webb for the way in which he has discharged the onerous duties of the office of Hon. Secretary for some time past. The duty is not a duty, but a privilege, in my opinion, and it would be equally so, I venture to think, to almost every gentleman in this room; and not only to every gentleman in this room, but to the numerous members of the Institute who are not here to-night. I venture to think that they will all join with us in the unanimous vote which I have not the slightest doubt the motion will receive. Our good friend, Mr. Aston Webb, has not only brought to the discharge of the duties of his office the abilities which we all know he possesses, but he has given us a great deal of very valuable time. I am rather glad to think that the increasing demands upon his time, in a different and perhaps more remunerative way, have to some extent caused his retirement, and I congratulate him, and I am sure we shall all do so—(cheers)—most heartily upon that reason. At the same time, Sir, as he is a very old friend of mine, I am also aware that there are other reasons, which will commend themselves, I am sure, to all members of the Institute who are heads of families. What between the devotion to his work, which is absolutely necessary, and the devotion to our interests, which he has made a necessity during his term of office, those things together have robbed him of that opportunity of intercourse with his family which all those who are heads of families will desire to enjoy. And therefore I am quite sure we may not only wish him professional success, and congratulate him on really having attained that, but also that greater enjoyment of his family which will arise to him consequent upon our not demanding so much of his time. I perhaps am not a very unfit person to ask you to agree to this motion; I feel a sort of paternal pride, as an old Fellow, in my young friend, Mr. Aston Webb, when I recall the fact that a considerable part of

his early professional life was passed in my office; and therefore you can easily imagine the feeling of intense personal gratification which I entertain in wishing him God-speed in anything he may put his hand to. He has shown distinguished talent; that we all admit; he has shown in the discharge of his office all those courteous manners which every gentleman desires to receive from another; and he has not scrupled, as I said before, to devote so much of his time and ability as to render the successful discharge of his duties, during the time he has held the office, an acknowledged fact. Mr. President, Gentlemen of the Council, and members of the Institute, I venture with the utmost confidence to anticipate your unanimous Vote of Thanks to Mr. Aston Webb for the excellent way in which he has discharged the duties of the office of Honorary Secretary.

Mr. JOHN SLATER, B.A.Lond. [*F.*].—Mr. President and Gentlemen, it is with feelings of very great pleasure that I rise at your request to second the Vote of Thanks which has been proposed by Mr. Barry. No one connected with the Institute, I think, who has not had some experience on the Council, can have any idea of the amount of time which the conscientious performance of the duties of Honorary Secretary demands from the person holding that office, and no one can doubt that these duties have been conscientiously performed by Mr. Webb. But yet our regret at losing him must be tempered with our gratification, as Mr. Charles Barry has said, that it is mainly his largely increasing practice which necessitates his withdrawal from the office. The office of Honorary Secretary to this Institute has traditions attached to it in the highest degree honourable, and I think that all who have noticed the way in which Mr. Aston Webb has performed his duties must admit that these traditions have been most fully and honourably sustained. Those of us who know him personally will regret still more the loss which we shall sustain, but I venture to hope that his absence from the Council table will at any rate be only for a short time, and that we may soon see him there again. I beg, therefore, to second the Vote of Thanks, which Mr. Charles Barry has moved, in the heartiest manner—That the heartiest thanks of the whole body of the Institute be given to Mr. Aston Webb for his services. (Cheers.)

The PRESIDENT.—It is really a mere matter of form to put this motion to you, but it is necessary for me to do so. I will refrain by any utterances of mine from raising any more blushes to the face of my friend than are probably caused by the pretty things which have already been said of him. I have often had occasion to refer to his services here, and I shall but consult his feelings, I am sure, by refraining from saying more on the present occasion. I may venture to add that he has been my own child, for I nominated him as my own successor, after having myself filled the post of Hon. Secretary for a perfectly unconscionable period. I will now put formally the Vote of Thanks which has been proposed by Mr. Barry and seconded by Mr. Slater.

The Vote was agreed to amid loud and prolonged cheering.

Mr. ASTON WEBB [*F.*]—Mr. President, Mr. Barry, Mr. Slater, and Gentlemen, I have to thank you for the very kind way in which this Vote of Thanks to me has been moved, and for the very kind manner in which it has been received. Really the thanks are entirely on the other side, and I have to thank you, Gentlemen, for having allowed me to occupy this position for the last three and a half years. It has been a great pleasure to me, and I shall always look back with satisfaction on the fact that you have allowed me to occupy this post. I can assure you I much appreciate the far too kind manner in which this vote has been moved and seconded, though I feel my services have been described in far too flattering a way. I cannot sit down without saying what a pleasure it has been to me to serve under such distinguished Presidents as Mr. Waterhouse and Mr. Anderson, our present President. The kindness I have always received from them I have received from every one. From the Council I have received nothing but indulgence; from the Secretary and all the officers of the Institute I have received a great deal of help. I need not tell you, Gentlemen, that a great deal of the work which appears to come from the Honorary Secretary's hands, does not come from him at all, but from Mr. White and other officers of the Institute. I fear I often got the credit for what they did. I have always considered that this Institute is especially fortunate in the officers who serve it. Of course we make mistakes occasionally—we all do—but I am perfectly certain of this, from the experience I have had, that if any mistakes are made here, they are made solely and entirely in the belief that what is being done is for the benefit of the Institute, and that the one aim and object of all,—every one of those who are in this office, is entirely bound up with the interests of the Institute. I think we are exceptionally fortunate in having officials of whom, after some amount of experience, I can say honestly that they have but this one aim and object in carrying on the affairs of the Institute. I am quite sure, moreover, that the same kindness and help which have been extended to me will be extended to my successor, Mr. Emerson. When I felt bound to ask you to receive my resignation I did so with great regret, owing to personal reasons which it would be neither interesting to you nor necessary for me to name. But I may say that they had nothing whatever to do with the policy of the Institute, or with the Institute itself, but were, as I have said, purely personal. The more I have worked here, the more I have believed in the actual necessity, to practising architects all over Great Britain, for some central body such as this Institute is. (Hear, hear.) Gentlemen, I think you will agree with me that my last act is my best,—namely, in making way for an Honorary Secretary who will perform the duties so well,—and I am very glad to think that my place will be taken by one whom we all know to be so able an architect and so courteous a gentleman,—as Mr. Emerson.

Gentlemen, I thank you again, in conclusion, very heartily indeed for all the kindness I have received since I have held office here. (Loud cheers.)

The work of the Business and Special General Meetings having thus been brought to a close, the President called upon Mr. Crace to read his Paper on

PICTURE GALLERY DECORATION.*

New Galleries at Brussels and Antwerp.

Mr. President and Gentlemen,—During a recent very brief visit to Brussels and Antwerp I was much interested in seeing for the first time the new buildings which now contain the old pictures in both these cities. Both are important collections, especially rich in the earlier works of the Flemish school; which, indeed, can hardly be fully understood, as to its growth and development, without some study of the magnificent collection in the Musée of Antwerp, now greatly enlarged since my first acquaintance with it.

The object of this note, however, is not to speak of the pictures, but of the means adopted for setting them forth. The modern Belgian school has occupied so prominent a place in the art history of the last thirty years that every artist may fairly expect to learn something from any important effort in which the Belgian painters may be assumed to be deeply interested. I was therefore anxious to see what lessons could be learnt from the decorative treatment of the new galleries themselves. Here were some of the same problems with which I was confronted, in 1887, in the additions to our own National Gallery, so ably designed by Mr. Taylor. How had our neighbours dealt with them?

I found, in the first place, that the two musées in question entirely differed from each other in the main theory of colouring; and, even after making considerable allowance for the superiority of the Antwerp collection, it was not difficult to decide that the Brussels pictures suffer grievously in comparison, owing to the mistaken theory adopted in the colouring of the Brussels galleries. This false theory is that pictures gain in tone by being placed on a "dirty" or very low-toned background. It is a common mistake, founded on a crude and unobservant deduction of the laws of contrast—which certainly I should not have looked for in the Belgian capital. There is no more harmony to be got out of crude contrasts of tone than out of crude contrasts of colour. And where the human being—or his representation—is concerned, "sympathetic" harmony is indispensable. A man does not appear cleaner in the face for wearing a dirty shirt, nor does his picture appear the fresher for hanging on a dirt-coloured wall. In both cases the flesh-tints, with their delicate gradations of shade, are *dragged down*, not helped up, by the greater mass of degraded colour. The Brussels pictures are hung on what can best be described as "mud colour," with the result that at least nine-tenths of them suffer in tone.

The picture-galleries, or rooms, on the first floor of the Brussels Musée are built around, and with one side open to, a large oblong central hall, open from ground to roof. This hall is lighted from above, the roof being carried on an arcade with white or light grey marble columns. The enriched soffits of the beams are lavishly gilt, but the gilding ends there, except in a feeble spray of ornament in the spandrils of the arcade.

This is unsatisfactory, because the gilding separates the roof structure from the rest of the building. It should either have been carried further or omitted, at any rate in such quantity. There is much that is noble about the building, but its colour treatment appeared to me very unfortunate both for building and pictures.

The Antwerp Musée presents entirely different conditions. One has no sooner fairly entered the building than he finds himself in a grand vestibule, containing the double staircase which leads to the picture-galleries. The whole of the upper walls of this vestibule is devoted to pictorial decoration on a grand scale, the panels being filled with groups of figures, considerably above life-size, illustrating the history and development of art of the Antwerp school. These fine paintings, by De Keyser, are executed in a full and somewhat brilliant key of colour. The margins which separate them, and the mass of the cornice above them, are coloured a somewhat cold rifle-green, or rather dark grey-green, with very little relief. The same tone is carried up into the cove above, but here relieved, somewhat sparsely, by a russet red, and little else. The effect of this, though not without some dignity, is to establish *too much separation* between the pictorial surface and its architectural setting. The dull greenish black somewhat forces the colouring of the pictorial groups, of which colouring there is too little suggestion of recall in the decoration of the architecture. A few lines of colour, approaching in tone some of the leading colours in the groups, would have greatly helped to weld the paintings and architecture into a more complete whole. In our dull atmosphere the moulded details would be lost in gloom if so heavily coloured.

Within the picture-galleries themselves the colouring is far more favourable to the pictures than that of the Brussels Musée. Indeed, it must be conceded that many of the pictures show admirably here. The walls are tinted dull red, of a tone somewhat too "pinky" and cold to be quite satisfactory, yet by no means unfavourable to the majority of the pictures. The cornices are tinted with the same dark tone of greenish grey which we found in the grand staircase, a shade of the same prevailing in the cove above, where, again, the very low-toned red is used in relief. In this position none but a good result to the pictures occurs from this decoration; but it has a depressing and rather mournful effect on the rooms

* The Paper was illustrated with lithographic sections and elevations, and with a few photographs, kindly forwarded by M. Paul Saintenoy, of Brussels, who is known in this country from his published descriptions of English buildings.

themselves. No harm to the pictures would have been wrought by accepting a somewhat less dismal scale of colour above. It is noticeable that both here and at Brussels all light tone is omitted from the upper features of the galleries in which the pictures hang. Yet some use of a tone of white (more strictly a stone tint) *a little lower in tone than the whites in the paintings* would be found actually helpful to the light tones in the pictures—always provided that it be not so lowered as to lose its character and look dirty.

These are the criticisms which occurred to me on the spot. They must be regarded as first impressions. If they are somewhat superficial I must plead that it is difficult, when the opportunity is short, to give careful attention to both the jewels and the casket.

Mr. Alma Tadema, who has had the notes of my Paper before him, has written to the Secretary as follows:—I find I am unable to be present to-night, and that to my regret, as the subject to be discussed is an interesting one to painters. I, for one, believe that as pictures are a harmony composed of colours, any colour must be injurious to a picture, as it necessarily interferes with some of the colours which form part of this harmony. I therefore believe in only three backgrounds to see pictures upon—viz. white, black, or metal. White, however, will interfere with the brightness of the picture; black will injure the power of the painting; so remains metal, the very thing the artists chose to isolate their work by introducing it into their frames. This is the reason why I always advise the use of the stamped Japanese paper without colours,—to be used for the lining of the walls of a picture gallery,—and why I have always found it satisfactory where it has been applied. Perhaps you might like to know my views in the matter—that is why I write such a long letter.

If it is not taking advantage of Mr. Alma-Tadema's absence, I would say that he suggests actually three colours, of which two are the most powerful extremes of the whole scale—black and white. Black, undoubtedly, would knock all the colour out of any picture; and white, on the other side, would dirty any picture which is not exceedingly fresh; but then there remains the metal—the third. The drawback to that, taken as a ground, for a collection of pictures, such as may occur in any gallery, appears to me to be not only that it does not really do the best justice to the pictures, but that it is in some degree a quarrelling with the frames. You cannot put the frame out of account altogether. The use of the gilt frame to a picture is a very important factor in the question. It comes next to the ground colour of the walls, and it is of importance to the clearness and luminosity of the picture that the frame should free itself of the ground. If the ground of the wall be of a tone of gold different from the tone of gold in the frame, and unsupported by any second colour, the effect will be disagreeable—the effect of brass with gold—because, as a matter of fact, the gold in the Japanese paper is not gold at all—it is a bronze—and in nine cases out of ten it does not really approximate very closely to gold when you put gold against it. It is curious how often painters who utilise *theory*, with all the necessary control of *practice*, in their paintings (with excellent results) are content with the outside edge of a theory outside their pictures. Mr. Tadema is too able an artist to have arrived by experiment at the opinion that all pictures in gilt frames look best on a wall with no ground colour but gilding; but he says because a picture contains all colours it must be so. I advise him to look into the Arts Club and see how injurious to pictures—to some pictures—his Japanese gold paper can be. There are a good many members of the Arts Club here, I believe; if they look into the coffee-room there, they will notice that it has a paper which has a bronze ground, and on it hang pictures which are simply ruined by it. It is remarkable that most of the colour theorists have omitted to deal with this subject. Chevreul, who is not afraid to advise ladies—and I am afraid *very badly*—about their bonnets and other similar details of their attire, stopped short at the question of colour-ground for pictures. The fact is, it is an extremely difficult question to solve or account for by theory. But this is largely because so many more factors have to be taken into account than at first sight appear. Besides the question of colour, that of surface-treatment occurs. I venture to think that it is desirable that there be sufficient pattern, however quietly expressed, to give surface to the wall. If the wall is coloured merely with a plain tint, whatever tint that be, and pictures are put upon it numerously, the effect will be rather that the pictures are *in vacuo*, so to speak—they are not on a surface—and, however unobtrusively the pattern be expressed, it is a great advantage to the wall on which pictures are to be hung that there be some amount of pattern upon it, in order that the surface of the wall may be recognised. (Cheers.)

J. D. Crace.

Discussion.

Mr. WILLIAM WHITE, F.S.A. [*F.*].—Mr. President and Gentlemen, it was my impression always that it was an accepted axiom that a background for pictures ought to be of a neutral tint, and I cannot help thinking that that neutral tint would be the best for them under all circumstances, because it would neither affect the contrast of the various colourings of the pictures themselves nor unpleasantly subdue the harmonies. But I think the suggestion which Mr. Crace made with reference to some small pattern upon the wall is of very great value. Even a neutral tint probably would not be such as to suit all the pictures, and it is very likely to be such as not to be in itself quite a pleasant one, for it is very difficult to get a satisfactory neutral tint. If it be broken with some slight pattern, such as Mr. Crace has spoken of, with rather more positive colour—say of a tertiary colour—I should think that would give the subdued tone which would admirably set off pictures.

Mr. H. L. FLORENCE [*F.*].—Mr. President and Gentlemen, as I have recently seen the new galleries at Brussels I may perhaps be excused for saying a few words, although I confess I have nothing of any particular interest to add. I certainly thought that the effect of the Brussels Gallery was depressing and monotonous. Nor did I think that a series of rooms opening over and looking into a central hall was successful. It is rather distracting: one side only of the galleries has pictures; the other, divided into open spaces, looks into the central hall. Nor was the side light in all cases good; it rather confused the general effect. There was certainly a want of a deeper and richer background to the pictures. From what I have noticed generally in public galleries and in private houses I think nothing is so well suited, for a ground for oil paintings, as a not too vivid red. That is the colour which of all others sets off oil paintings to advantage. At the same time almost every gallery wants special treatment. What may look well in a top light is not at all suitable for a side light; and the same may again need modification to suit a light at one end. In some such cases as that, I think you may use a very much more decided colour. I know a room in London, which suits pictures of the modern school of small size and of varying tones admirably, in which the ground surface is a bright turquoise blue. Now that is a colour which, unless one saw it and knew it from experience, one would not choose; but, as a matter of fact, it is only pictures which are of a deep grey tone which do not look well upon it, but various tones of green, grey, yellow, and orange, show to advantage upon that bright-hued background. I just mention this because it shows, I think, that one may be very much bolder in colour than is very often the case. I have also seen rooms which are hung in brocade of two tones in silk—the same tints, but in different varieties of the material. Tones of old gold brocade also suit some styles of pictures very well. I thus think that we must not be led into supposing that there is any axiom at all with regard to tints and neutral backgrounds —that each room needs a treatment of its own. In conclusion I am happy to second the Vote of Thanks to Mr. Crace.

Mr. S. VACHER [*A.*].—My excuse for speaking, Gentlemen, is that, often as I have worked in picture-galleries, generally examining and drawing from pictures of the old masters, I have tried to solve and think over the problems of the decorations of their galleries. First of all, in pictures of the old masters, you have strong colour often intensified by glazes, and you have the frames, which give you gold enough to allow you to put any amount of colour upon the walls, and you have the enormously strong colour of your pictures. Now it seems to me that the great fault which Mr. Crace found with the decorations of the Brussels Gallery walls was that the colour was so dull. I was astonished to hear him say that black would kill any pictures, because I had in my mind black treatments, especially the black rooms of Pompeii, with their pictures of strong colour on them, one of the most glorious colour arrangements I know. No doubt many of us remember the visits we paid to Sir Wilfrid Lawson's house. The decoration of the drawing-room was black, black dado and doors; the frieze was of richest colour, leaves and flowers, with the strongest black for background. The black was intense; it had a polished surface (a strong shine on it), it was not a dull black. All the criticism we have heard this evening seems to be against dull flat colour. It appears to me that the fault of so many decorations is in this, that they are not content with putting strong enough colours on, and they put dull colours. This, I think, often arises from trying to produce in distemper effects which can only be got in oil. If you have a black surface like that at Pompeii, it is wonderfully light in parts, though dark in others, and there is intense richness of decoration on the surface. It is not so much the colour as the surface. It is that which I think the painters appreciate so much in the Japanese papers—their lacquered surface. I have seen a ground of plain colour charmingly bright; it has been painted with a slight amount of varnish in the last coat of paint, giving it a slight gloss. It is this gloss which gives the brightness. I have heard several gentlemen speak of the "tint." I think that is one of the faults of our decoration; we get too much tint and not enough colour. In England especially, I think, we want bright colours, because in a very few years our atmosphere will take much of the brightness out, and you will have then no colour left.

Mr. R. H. CARPENTER, F.S.A. [*F.*].—I should like with your permission, Mr. President, to instance a case which is perhaps rather exceptional, where the decoration of the room was left entirely to the artist who painted the pictures for it—I refer to the great billiard-room of Wortley Hall. It has been specially arranged to receive the four great pictures which Mr. Poynter painted for Lord Wharncliffe, "Atalanta's Race" being one of the most celebrated of them. His Lordship left the whole scheme of decoration to Mr. Poynter, who prepared all the small-scale and full-size working drawings necessary for the purpose, and they were carried out entirely under his personal direction. The whole scheme of the decoration is brilliant. The two colours used are a brilliant blue and a soft green for the grounds, with gold for the patterns and ornamentation. In one place only—namely, in the soffit of the beams —is there a dull red used. The whole is a most beautiful example of brilliancy of colour. The room is lighted by flats of glass, which are also treated in the same general scheme of colouring, introducing a soft white toned glass, the result of which is to give a mother-of-pearl-like effect to the glazing. The whole extremely brilliant, though soft and harmonious, effect is evidently, in Mr. Poynter's opinion, that which is best adapted for his pictures.

Mr. J. M. BRYDON [*F.*].—Mr. President, I should like to add a few words to what Mr. Carpenter has been saying about brilliancy of colour

to a certain extent. I know the Antwerp Galleries, and I was very much struck with what Mr. Florence said about the galleries at Brussels—that they were most depressing rooms. It is very interesting to hear the opinion of Mr. Crace (such an experienced decorator as he is) that the Antwerp rooms are better than those of Brussels, because, even if so, the Antwerp rooms are simply wrong. It always seemed to me that anything approaching Nature in the way of tapestry, or stuffs of some kind—not anything with varnish in it—was most suitable for pictures. At Antwerp the whole effect of them seemed to be not to help the brilliancy of the pictures, because, as most of us will very well remember, some of the pictures in the panels are extremely clever as pieces of colour, although as pieces of design they are not so extremely clever. But all around, you feel that there is a want of something to throw them up. They look as if they were in holes—they are surrounded by a certain amount of gloom. Then, going to the general subject, Mr. Crace has very appropriately said that gilt frames are of immense value upon the dead colour in a picture-gallery. It has always seemed to me that if you can carry the gold of the picture-frames into the architecture by means of gilding, you produce a richness of effect without making it spotty. I remember being in a room in Cheshire a few years ago, where some of Mr. Burne Jones's and the late Dante Rossetti's pictures were hung, and the extraordinary effect of the room, when I saw it, was its harmony from beginning to end. That was produced by the stuff which was behind the pictures—not a brocade, but a rough worsted sort of material of a dull-coloured red, with a pattern running over it. There is no question whatever that plain colour is not nearly so good as the broken colour to be got from a pattern painted or from a stuff approaching to tapestry. Perhaps tapestry runs in my mind most because a recent client of mine, in a matter that I did, had bought some beautiful tapestry and hung his rooms with it. The effect of the pictures when hung upon that was simply beautiful. The effect arose principally from the broken colour that was got from the different tones of the foliage coming in as a kind of pattern between the different pictures. It also struck me that anything approaching to very dark colour above the pictures would be more or less a mistake. There is no doubt that the wall line always ends with its sconce, and that after that you want as much light as you can, so as not to bring down the ceiling upon the top of the pictures; whereas anything which produces a heavy effect in the cove will naturally produce that result. I wish Mr. Crace had given us a few more of his ideas about decorating picture-galleries, because they are very important. In our own National Gallery there are some instances in which red Numidian marbles have been used, but alongside of them they have some colour on the walls which turns those marbles into something a little like beef which has gone bad. Now, I say that the artist should not be wiped out either by the decoration or the setting of the pictures, especially in monumental work like that at Brussels and Antwerp and our own National Gallery. I have much pleasure in supporting the Vote of Thanks to Mr. Crace, and at the same time I must express my regret that Mr. Alma Tadema is not able to be here, because the painters are most especially interested in this subject, and he would no doubt have given us more about it than can be put in a short letter.

Mr. R. PHENÉ SPIERS, F.S.A. [*F.*].—Mr. President, when instructed twelve years ago to redecorate the Galleries of the Royal Academy, I supposed that the Council would have given some instructions as to the colour that should be adopted; therefore I asked Mr. Street, who was then Treasurer, what I should do—whether I should keep to the same colour, or vary it in any way. He said: "I have no instructions to give, and the "Council will give you no instructions. I should "advise you to paint the rooms exactly as they "are now—not to change the colour in any parti-"cular." Now there happened to have been a small panel moulding planted on the walls, so I instructed the foreman of works to leave that moulding on, so that eventually it might show what the original colour had been, and it was fortunate that I did, for when the Academicians came back from their holiday they said, "Good "gracious, what has Spiers been up to! These "colours are awful; they will kill all our pictures." The foreman, however, pointed out the colour they had chosen, untouched under the moulding, and nothing more was said. There is no doubt that when there are no pictures in the galleries you see a great deal more of the wall, and the colour looks too brilliant. The walls of the Lecture Room, in particular, in which, previously, paintings had been placed, looked much too bright when they put the sculpture in it. It will be remembered that in the Grosvenor Gallery they adopted the system of having a very bright crimson damask background, and I must say it appeared to me as regards value to harmonise well with the pictures, and that, although it appeared to be an intensely brilliant colour, it did not interfere much with the colour of some. I say "much" because I think to a little extent it did so. I remember many years ago, in the Pitti Palace at Florence, noticing crimson backgrounds which were infinitely more intense than that in the Grosvenor Gallery; but there was this difference: in the Pitti Palace the pictures there are hung very close to one another, and if pictures are hung very close to one another, you may have as brilliant a colour as you like at the back, because the background will be partially in shadow, and therefore it will not appear too bright. I think we should like to have some advice from Mr. Crace as to lighting of rooms in houses. The difference of effect arising from the way in which the light comes from a side light is very great as compared with that coming from a skylight. I have never carried out any scheme of importance, but in the papers which I have put upon the walls I generally liked to have the ground broken up with various

colours, which, when seen from a distance, look like grey, and that is better than the colour of this Institute room. I think that on a plain ground pictures do not look so well as when the background is broken up, unless it be of a bright colour.

Colonel PRENDERGAST [*H.A.*]—Mr. President, it seems to me that we are getting somewhat into a fog, from the fact that we are talking about two separate subjects in the same discussion. As I understand it, Mr. Crace brings before us the question of methods which have been used in decorating picture-galleries. Now, a good many of those who have taken part in the discussion have brought in the question of living-rooms which have pictures in them. Now, I venture to suggest that these are two perfectly different and almost opposite positions. It is presumptuous to differ from so great an authority as Mr. Crace on the subject of decoration, but I cannot help thinking that that wholesale denunciation of black is rather a serious order when you are dealing with pictures not of the first-class, because that is a point we have to consider. The old school—those who collected pictures in the last century—were absolutely opposed to the introduction of colour of any pronounced character, where pictures of high quality were brought together into galleries. It was almost universal. Circumstances have enabled me to be in communication with persons of that description, and the finer the pictures the less would coloured surroundings be permitted by the *cognoscenti* of that time; and I venture to think that it behoves us, in these days of colour-worship, to consider whether, under all circumstances, we may not too highly decorate picture-galleries with colour. You may depend upon it that where the fine work of great masters is to be studied, nothing must detract from the value of those great works. If you are, on the other hand, as has been suggested, decorating private houses—palaces, if you please—you then come into a different question altogether. You have the feeling *de luxe*, and furniture, and all the rest of it, to consider; but when you come to deal with pictures as works of art, I venture to think that the treatment must be wholly different. I should like to ask Mr. Crace to make the experiment, if he never has made it,—when he has a lot of pictures, not of the first class, in fine gilt frames,—to hang the walls with black satin. It will have the effect that was alluded to by Mr. Vacher; the gloss will come in, and there is a singularly favourable effect produced. Mind you, not for works of the first class.

Mr. W. WHITE, F.S.A. [*F.*]—Might Mr. Carpenter be asked what was his impression of Wortley Hall? He did not say whether it was either satisfactory or unsatisfactory; and as it was such a pronounced specimen, it would be interesting to know what the effect was.

Mr. CARPENTER, F.S.A. [*F.*]—I think the effect was perfectly beautiful.

The PRESIDENT.—It seems to me, without professing to be an expert upon this subject at all, that the safe rule to lay down with reference to a picture-gallery is that the background should in no way compete, as it were, with what, after all, is the main decoration of the apartment—the pictures. It is perfectly consistent, I imagine, with this, that the background should be, not necessarily of low tone, but should be of strong colour. I have just been reminded, as an illustration of this, that our pictures which hang in the Council Room downstairs never looked so well as they now do when hung upon the red background. Mr. Aston Webb put in the room under Mr. Crace's advice—a dark, bricky red. Again, I think if you were to take that portrait of Sir Gilbert Scott's from where it is, and hang it against the dark red below, the effect, so far as the picture is concerned, would be infinitely better. With these remarks, I will put before you the Vote of Thanks, which has been proposed, for Mr. Crace's interesting Paper. It is of very great value to us to have the opinion of a man like Mr. Crace, who has been engaged upon this work all his life; and although his Paper has been, for the reasons he has given, short, it has been of extreme interest and value, and we are all, I am sure, very much obliged to him for coming here to read it (cheers).

The vote was passed by acclamation.

Mr. J. D. CRACE [*H.A.*].—Mr. President and Gentlemen, I thank you very much for the Vote of Thanks you have been kind enough to pass, and I hope it will be admissible for me to make a few replies to the questions which have been raised during the discussion. Taking them as I have jotted them down, I would speak first of the question of the use of black—black in large quantities. Small quantities of colour put upon the black, or quantities which are small in proportion to the field of black, are so over-purified by the black that for good works of art it is damaging, in the sense that it exaggerates, weakens, and chills all the fuller tones, or takes out of them all the more delicate shades of colour. I quite agree with Colonel Prendergast that, if you have inferior pictures, you should put them upon black ground, for the reason that you take out a the dirt from them; but the same action applied to good pictures means a general weakening of the colours themselves, for the same influence which takes all the dirt out of them takes also the finer gradations of tone out of them by using black, just as, by using white, you exaggerate in the opposite direction—all your yellows become browns, and all your low whites become drabs, and the whole is made heavy and dirty in tone. Anybody who has ever attempted to paint decoration on a black ground will have found himself, even after some practice, considerably startled at the necessary combinations on the palette before they are put on to the black. There is no more perplexing ground to paint decoratively on than black, because, although you may get an admirable effect at last, you have to go through an amount of darkening and lowering of the colours to be used—very astonishing even to a practised hand. As regards "neutral tint," this is a very vague expression. It must be remem-

bered that all pictures are full of neutral tints, and these are just what are damaged by using neutral tint as a ground. The sky is full of neutral tint, and if you put a neutral tint which is a little too good for the skies, you make your skies dirty; if you make your neutral tint dirty, you drag down all the rest of the colour. Neutral tints in painting are precisely those which are most sensitive—that is to say, most easily affected by all other colours. Positive colours will always hold on, but neutral tints will be dragged in any direction. You may make the same neutral tint look like blue, or you may make it almost like pink, by what you put next to it or upon it. You cannot do that with red or any strongly-marked colour. There is no question, I think, that all experience and all experiment go to show that some sort of red is the best ground for a miscellaneous collection of old pictures, if you are limited to one colour only. There are some admirable backgrounds to be achieved by the use of tapestry. That combination of colours which exists in tapestry has all the charm that can be got out of harmony by analogy. That is to say, you recall in the ground some suggestion of the colours in the pictures, and that is undoubtedly a very charming way of making the most of the pictures and making the most of the room. You ally the ground with the pictures, and still you detach the frame, which is one most important part of the whole. One great value of the red is that it detaches the frame and keeps the picture from confusing with what is about it; and the red, therefore, keeps it clear and precise before you, just as when you look at a view through a window, you have the view more precisely and definitely in your mind afterwards than if you had looked at it in the open. As regards the point mentioned by Mr. Carpenter, the case of Wortley Hall, that is just a little outside what I was attempting to dwell upon, which is the question of settling the ground for a miscellaneous collection of pictures. Of course when one artist undertakes the whole room, paints the pictures, and paints the decorations too, the whole thing is really one picture. It is not a question of putting it on a ground at all. So I say that, as regards the old masters' works, a great many of those pictures were not certainly painted to be stuck up upon a neutral-tinted wall; they were painted to form part of a very richly coloured decoration—they were altar-pieces surrounded by all sorts of rich colour. The best proof that the old masters did not think that bright colour hurt the pictures is in the vivid colours they put round them. I may say, Sir, that I think silk, as a matter of fact, one of the best materials that can be utilised for the purpose of putting pictures upon. The soft reflections of silk produce almost imperceptible grey tones and half tones which are exceedingly valuable and agreeable in a ground. The great objection to putting dark pictures (and of course all old oil pictures are dark) upon light tints is that you exaggerate the darkness, and if you have a series of dark pictures upon a light ground, whatever tint the ground may have, then the paintings cut themselves out as black holes and you do not see half the picture. The crimson damask which was used at the Grosvenor Gallery undoubtedly made an admirable ground for the pictures which were exhibited there as a rule. It was a little geranium-tinted; still, it was a very fine and exceedingly becoming ground to the majority of the pictures that were placed upon it. One may say this, too—I think it was mentioned by one of the speakers—that the closer the pictures are together, the brighter may be your ground, because of the more shadow there is upon it. It is almost necessary to provide, in fact, for the shadow, if the pictures are placed very closely together. Anything like dark, subdued colours will become, practically, too black. There is one point which I dare say may have been noticed in our own National Gallery. The compulsion that we are under of placing pictures under glass is of course a difficulty which is almost apart from the pictures themselves. I refer to the fact that in the floors the white band on the marble is so apt to get reflected in the glass of the pictures; and if you were building a gallery, with a view to putting pictures under glass, I would suggest that it would be a good thing to avoid any very evident contrast in the colour of the floor.

MINUTES. II.

Business General Meeting.

At the Second General Meeting (Business) of the Session, held on Monday, the 21st inst., at 8 p.m., Mr. J. Macvicar Anderson, *President*, in the Chair, with 41 Fellows (including 9 members of the Council), 35 Associates (including 1 member of the Council), and 3 Hon. Associates, the Minutes of the General Meeting (Ordinary) held on the 7th inst. [see p. 36 *ante*] were taken as read and signed as correct.

The decease of the following Fellows was announced, viz.—John Goldicutt Turner and James Williams.

A list of donations to the Library and Collection [see *Supplement*, No. 3] having been taken as read, it was

Resolved, that the thanks of the Institute be recorded to the several donors.

The President made a statement with reference to the November examinations, and announced the names of 13 candidates who, in the November Intermediate Examination, had qualified for registration as Students [see p. 45 *ante*].

The following Associates, attending for the first time since their election, were formally admitted and signed the Register, viz.—Sydney White Cranfield, Matthew Garbutt, and John Murray.

Mr. Charles Fowler [*F.*] having, with the permission of the President, called attention to an article in *The R.I.B.A. Journal* [p. 43 *ante*] under the heading of "What is a Warehouse under the "Act?" observations were made respecting it by Mr. F. Wallen [*A.*], Mr. C. Forster Hayward,

F.S.A. [*F.*], Mr. Wm. Woodward [*A.*], Professor Kerr [*F.*], and the President.

The Meeting having appointed two scrutineers —namely, J. Douglass Mathews [*F.*] and R. Phené Spiers [*F.*]—the following candidates were balloted for and declared to be duly elected :—

As Fellows (13).

Henry White (Penzance).
Herbert Frederick Tomalin [*A.*], F.G.S., Assoc.M.Inst.C.E. (Ceylon).
Paul Ogden [*A.*] (Manchester).
Charles Steward Smith [*A.*] (Reading).
John Evelyn Trollope [*A.*].
Samuel James Newman (Northampton).
Arthur William Brewill (Nottingham).
Richard Harris Hill, M.Inst.C.E.
Charles William Bevis (Southsea).
William Ravenscroft (Reading).
William James Morley (Bradford & Bolton).
Stephen Salter, jun. (Ryde).
George Henry Jeffery (Florence).

In accordance with clauses (*b* & *c*) of By-law 9, the following candidates were elected by show of hands :—

As Associates (11).

Alfred Charles Houston.
Robert John Angel (Birkenhead).
Frank Morrish Harvey.
Ernest Harrison Jones (Liverpool).
Matthew Starmer Hack.
Alfred Wickham Jarvis.
James Paxton.
Albert William Cleaver.
George McLean Ford.
Thomas Gildart Mansell (Birmingham).
Robert Alexander Reid.

As Hon. Corr. Member.

Professor Charles Babcock (Cornell University, Ithaca, N.Y.).

The business having terminated, the Meeting adjourned at 8.50 p.m.

Special General Meeting.

At a Special General Meeting held on Monday, the 21st inst., at 8.50 p.m., Mr. J. Macvicar Anderson in the Chair, the notice convening the Meeting was read, and it was, on the motion of the President, seconded by Mr. Charles Barry, F.S.A. [*F.*],

Resolved, that Mr. William Emerson [*F.*] be elected Hon. Secretary in place of Mr. Aston Webb [*F.*] resigned.

Mr. Charles Barry, F.S.A. [*F.*], having proposed and Mr. John Slater, B.A.Lond. [*F.*] having seconded a vote of thanks to Mr. Aston Webb [*F.*], it was

Resolved, that the hearty thanks of the Institute be recorded to Mr. Aston Webb for his services as Hon. Secretary.

Mr. Webb having expressed his acknowledgments for the same, the proceedings of the Special General Meeting terminated at 9 p.m.

Ordinary General Meeting.

At the Second General Meeting (Ordinary) held on Monday, the 21st inst., at 9 p.m., Mr. J. Macvicar Anderson, *President*, in the Chair, a Paper, by Mr. J. D. Crace [*H.A.*], on "Picture-Gallery "Decoration" was read by the author.

In the discussion which ensued Mr. W. White, F.S.A. [*F.*], Mr. H. L. Florence [*F.*], Mr. Sydney Vacher [*A.*], Mr. R. Herbert Carpenter, F.S.A. [*F.*], Mr. J. M. Brydon [*F.*], Mr. R. Phené Spiers, F.S.A. [*F.*], Colonel Prendergast [*H.A.*], and the President took part. Whereupon it was

Resolved, that the thanks of the Institute be recorded to Mr. J. D. Crace for his Paper.

Mr. Crace having replied, the Meeting separated at 10.15 p.m.

The L.C.C. and General Contractors.—The contractor is to be abolished, and, though the final blow has not as yet fallen, that curious product of modern civilisation has received notice to quit. We do not know that the contractor has many friends. He is generally able to drive a hard bargain, especially when he has to deal with a public body ; and he not unfrequently gives very bad work, as the comparatively recent experiences of the School Board have reminded the public. But whether the contractor can be safely dispensed with is quite another matter. Private individuals, great companies, and even the State itself have not been altogether fortunate when they have undertaken the direct execution of large constructive works, which in many cases would have been undoubtedly carried out more efficiently, speedily, and economically if they had been placed in a contractor's hands. A contractor, moreover, acts as a buffer between those whose work he undertakes to get done and the demands of labour. The County Council, however, is troubled by no doubts about its own capacity to play the ædile. A report presented by the General Purposes Committee was passed at yesterday's meeting of the Council, which shows that the policy revealed in the proposed acquisition of the property of the tramway companies is to be carried into another region. A new committee is to be constituted, consisting of fifteen members, three appointed by the Council at large, and one by each of its principal committees. This body is not only to retain the powers and the duties of the existing Stores Committee—considerably enlarged, as we are warned, because it will have to purchase and provide for the storage of building material and plant—but is also to be responsible for the plans and the execution of any works recommended by any committee which the Council may decide to have executed without the intervention of a contractor. Such works are to be carried out exclusively under the control and supervision of the new committee and its departmental staff, including a considerable number of persons. The department is to have a "chief officer" at its head, who is to possess "a thorough experience "of the purchase of material and plant and the "carrying out of large works under some well-known "contractor," and who is to be capable of advising on the purchase of stores and so forth, of superintending the execution of works, of employing and supervising workmen, and of regulating store yards and workshops.—*The Times*, 23rd inst.

No. 9, Conduit Street, Hanover Square, London, W.

THE HORSE GUARDS.—Portions of the original ledgers of the building of the Horse Guards and its wings have been presented to the Institute by Mr. William Willmer Pocock, M.A., a Fellow of the Institute. The extreme rarity of old "building accounts" renders it advisable to draw attention to such manuscripts.

This building was erected under the Board of Works of King George II. It is usually considered to have been designed by William Kent, a well-known architect of the period. Wheatley, in *London Past and Present*, 1891, more truly states that "the present building was erected 1751–1753 by John Vardy, after a *design* furnished "by William Kent." Even this is not quite correct, for these accounts show that it was begun as early as May 1750, and it was possibly not fully completed even in 1760, the last of the documents under consideration. William Kent, whose name is not mentioned in them, died on the 12th April 1748, at which time he held the appointment of "master mason" in the Board of Works. So this may account for the statements that the façade to Whitehall was the *design* of John Vardy, and that "the whole was executed between 1742 and 1752," as printed in Woolfe and Gandon's *Vitruvius Britannicus*, vol. ii. pl. 8 and 9. These ledgers show entries of "John "Vardy, Clerk of the Works, seeing the works executed, measuring, and making up the "bills," with a payment at the rate of £100 per annum. He was at that time, and in 1755, one of the Clerks of the Works attached to the Board, having Kensington Palace under his charge, and in 1756 Chelsea Hospital also. This is followed by another of "Isaac Ware, draughtsman, for making Drawings of the Plans, Elevations, "and Sections, and Drawing the Mouldings at large for the Workmen for the use of the "Building," paid at the rate of £100 per annum. Ware was secretary to the Board, clerk, and clerk-itinerant. A third entry is "William Robinson," who is described and paid the same as Vardy. As he was the clerk of the works attached to Whitehall, St. James's, and Westminster, he probably had a right to be employed on the works of the Horse Guards as within his official district. It may be a surprise that Thomas Ripley, who held the appointment, from 1727 to his death in 1758, of Comptroller-General, the then chief architectural officer of the Board, was not employed. At the head of it, as Surveyor-General, was the Hon. Henry Finch, down to 1760, when King George III. commenced his reign, who, as usual, renominated the officers, but appointed (his friend?) Thomas Worsley as surveyor-general, many letters from whom have been printed in *The R.I.B.A. Journal* [Vol. VIII. N.S., pp. 393–398]; and those letters exhibit the great care taken by Worsley in the interests of the king, even while in a bad state of health.

So much for the architect and the chief officers. It will be interesting to learn the names of the tradespeople, who, no doubt, were, as might be expected, the superior craftsmen of the period; others (marked *) were also the master-men attached to the Board. It was a royal work, paid for by measure and value, as was then the custom. The staff were provided with materials for drawing, writing, keeping the accounts, &c.

Book No. 1, being from May 1750 to August 1751, comprises the work "from the "foundations to the underside of the Fascia in the Basement story"; also "Work in "the Centre Building and Horse Guards wing."

Ralph Crutcher, bricklayer, who was allowed £5. 10*s.* per rod of reduced brickwork.

Andrews and William Jelfe, masons, at basement of centre building, new pavilion, and west front between centre building and the said pavilion. Cube Portland stone is priced 1*s.* 8*d.*

Joseph Pickford, mason.

George Lowe, and also John Mason, labourers; pulling down, excavating, and carting away.

Kemble Whatley, carpenter; at gates, boarding, centering, &c.

John Richardson, carpenter; boarding, deals, lowering the bell.

Strickland Holden, carpenter; fencing.

Benjamin Holmes, smith; also Robert Johnson, smith.

Philip Nind, ironmonger. John Devall, plumber.

Richard Troubrige, plumber.

Richard Wood, *cole* merchant.

Robert Powney, stationer, for books, paper, an Imperial portfolio, "a pewter standish," pencils, pens, penknife, and wax.

Then follow the three officers above named, finished by

Thomas Beighton, labourer in trust, at £35 per annum. He was responsible for the materials and stores.

*Thomas Kynaston (called "auditor" in a later book), examining the several tradesmen's bills and auditing the *accompts*, £20.

John Dorsett (called "engrossing clerk" in a later book), making up the several tradesmen's bills, writing memorials, and engrossing the several accompts, £20.

These three officials appear in each ledger or book.

The total amount paid for the work up to the Fascia was £9,781. 11*s.* 5½*d.*

No. 2 Book, from August 1751 to November 1752, "from the underside of the "15-inch Fascia." Herein are included most of the persons above named, with

Richard Hughes, slater.

Messrs. Richards & Ware, carvers. Windows in west front of centre building and north pavilion.

John Seddon, clockmaker; new works and repairs, £52. 12*s.* 6*d.*

The total amount paid for this portion was £15,835. 13*s.* 3¾*d.*

No. 5 Book, from March 1757 to March 1758, finishing the south-east wing and fitting up offices and apartments for the "Secretary at Warr and Comptrolers of the "Army; fitting up Orderly rooms and Guard rooms and cellars under ditto."

Joseph Carr, mason.

Robert Hardy, joiner.

Richard Cobbett, glazier.

Thomas Abbott, painter.

John Wilkins, pavior.

Thomas Heath, pencil-maker; "4 dozen of best "black lead pencils, at 6*s.* 6*d.* per doz."

George Murray, carver; chimneypieces and to windows.

The summary is lost; the items amount to the sum of £4,887. 0*s.* 1½*d.*

The next Book has the wrapper with a few of the first and last leaves missing, but the officers' time is recorded as "from January 1758 to 31 May 1760."

John Mason, labourer. "Horse Guards wing: "clearing the Rubbish out of the Stables, "Offices, and Vaults, &c.; Digging, Levelling, "and Clearing ground before the East and "West Fronts. Opening the Drains and "Sweeping the inside of them; Tempering "and Claying the same to prevent the Tide "from coming into the Building," &c. &c.

Elizabeth James, joiners' work done at centre building.

*Thomas Clark, plaisterer. Lower offices and ground floor.

Robert Dawson, plaisterer.

Robert Hardy, joiner.

*Thomas Clark, plaisterer. "In fitting up the "Judge Advocate's apartment, chapel, and "vestibule in the centre building; apartment "in south pavilion and north pavilion," and other rooms.

The total amount paid for this portion was £4,073. 4*s.* 2*d.*

Thus the combined totals of £9,781. 11*s.* 5½*d.*, £15,835. 13*s.* 3¾*d.*, £4,887. 0*s.* 1½*d.*, and £4,073. 4*s.* 2*d.*, bring up the cost to the sum of £34,577. 9*s.* 0¾*d.*, but this is clearly not the whole cost of the building. In support of the name of the designer there exists a finely-engraved view from the park, in perspective, also showing the portion of the Treasury erected from the design of W. Kent. This large plate is dated 1752, and is inscribed "W. Kent, Inv^t., J. Vardy delin. et Sculp." A copy of it is in the well-illustrated "Pennant" in the Soane Museum.—Wyatt Papworth.

REVIEWS. III.

(6)

THE ARCHITECTURE OF BURMA.

Papers on Subjects relating to the Archæology of Burma. By Dr. Forchhammer [Government Press, Rangoon.]

These Archæological Reports, dating from 1889 to 1891, which have been presented to the Institute by the India Office, represent two or three years' work by Dr. Forchhammer, whose death has since been reported. The loss of this scholar is to be regretted, as he was a recognised authority on the history and philology of further India. Dr. Forchhammer's decease may probably account for the imperfect form in which the Report has been issued by the printing department at Rangoon. The numbers to the plates and photographs have been almost entirely omitted, thus making it difficult to follow the references to them in the text. A plan of the ruined city of Pagán, which would be most valuable, is referred to as "plate X.," but it is nowhere to be found. These deficiencies are manifest evidence that the author's supervision had ceased before the Report appeared in its printed form. It ought to be the duty of Dr. Forchhammer's successor to reissue a more perfect edition of this document.

History and philology were Dr. Forchhammer's strong points, and this is evident in the Report. He was more at home in dealing with these than with architecture. Any one who is familiar with Indian architecture soon discovers that Dr. Forchhammer has not bestowed much attention to it. He is evidently well acquainted with the Burmese temples and their details, but he has been unable to compare them with the Indian, Singhalese, or Tibetan examples which are allied to them. To understand the architecture of any region it is essential to have some knowledge of the architecture of the localities near to it, and more particularly of any district from which the style you are studying is known to have been derived; and in the present case it is recognised that India was the source from which Burma received much of its architecture. This want on the part of the author not only shows itself in defective descriptions of temples, but it has led him into at least a very serious error. In describing the Shitthaung pagoda at Mrohaung, in Arakan, he says, "it is "more a fortress than a pagoda; its obvious pur- "pose was to serve as a place of refuge to the "royal family and retainers." This conclusion he bases upon the character of what is apparently the "procession path" of the temple, which in this case is certainly peculiar in form, and has much of the character of a labyrinth. The Dukkanthein and Lemyekhna pagodas are also described as "temple fortresses and places of refuge in war." It can scarcely be supposed that Dr. Forchhammer was ignorant of the pradakshina, or procession path, by which the shrine was circumambulated by the worshippers; but owing to his not being perfectly familiar with the forms of Buddhist and Brahminical temples in India he has been led into the above slip. It was Yule's knowledge of this kind that makes his book, *A Narrative of the Mission to the Court of Ava*, although published as far back as 1858, so much more instructive regarding the architecture of Burma.

Still, the Report is not without its value. It gives many minute details of construction, which are illustrated by numerous photographs; and the historical notices of the temples, coming from such an authority, may be looked upon as perfectly reliable. There is one aspect of the relics of Buddha which are enshrined in so many pagodas, or stupas, which may not be generally understood, but which Dr. Forchhammer explains. The Andaw pagoda at Mrohaung contained what was known as a tooth of Buddha; it is still preserved in a monastery near the pagoda, and a drawing of it is given in the Report; but it is the tooth of an ox, and the tooth-relic of Pegu is of the same kind. Now, according to the Jatakas, or birth-stories, Buddha, in his former births, was four times born as an ox or a bull, and one of these bovine existences was passed in that locality, in which at a later time he prophesied that the tooth would be found, and the pagoda built for it. The Urittaung pagoda contains a skull-bone of Buddha, but in this case again it is his skull in a former birth, when he was a rich Brahman and lived in Urittaung. This is a most useful theory, and accounts for any amount of relics, such as the numerous tooth-relics which exist yet, or formerly existed, in Ceylon, Burma, Afghanistan, and China. There was also a celebrated skull-bone relic that existed in the seventh century at Hidda—now Hada—near Jellalabad, in Afghanistan.

At the Shwé Dagon pagoda, in Rangoon, Dr. Forchhammer unearthed three large stones with inscriptions on them relating the origin of the pagoda. According to this, it was when Buddha had attained to Supreme Buddhahood, under the bodhi tree at Buddha Gaya, that two merchants, named Taphuss and Bhallika, offered him some rice cakes and lumps of honey. These Buddha received, and the merchants bowed down in reverence at the feet of the Blessed One, declaring that they took refuge in him and in the "Dhamma," or faith that he taught. These being the first that accepted the new religion, Buddha presented them with eight hairs from his head, which they brought with them on their return, and enshrined them in the thapana of a pagoda. The story of the two merchants is told in the Mahavagga, but without any mention of the hairs or the pagoda; the hair is mentioned in other accounts, and the legend seems to have been widely spread. This legend has an architectural interest, as it has been wrought into the origin of a number of Buddhist structures. Among those mentioned by Forchhammer, the Sandawshin pagoda at Akyab was built over eight hairs received from Gotama Buddha by two brothers of Ukkalaba. The Shwé Mawdaw pagoda at Pegu,* which is three feet higher than the one at Ran-

* An illustration of this temple will be found in Fergusson's *Indian and Eastern Architecture*, Nos. 351, 352; and the tradition of the "Two Merchants" is mentioned at p. 622.—W. S.

goon, was originally constructed to enshrine two hairs which two Talaing merchants, named Culathawaka and Mahathawaka, received from Gotama, with a divine communication as to where they were to be deposited. The Shwé Sandaw pagoda at Prome was built for four hairs received from Gotama by two brothers, named Eiksita and Pulika—this last name being evidently the same as Bhallika; and all these legends are only variants of the one story, and were no doubt adapted in each case to give a sanctity to the shrines.

To show how widespread this tradition had become, it may be pointed out that it had been carried in the opposite direction to that of Burma as far as the banks of the Oxus. The Chinese pilgrim Hiuen Tsiang mentions two towns on the north-west of Balkh, called Ti-wei and Poli, in each of which there was a stupa.* The pilgrim relates that these were built by "two house-"holders," or "merchant-lords," who had received from Buddha some of his hair and nail-cuttings. On being presented with these relics they inquired about the proper way of venerating them, and the manner of the reply has an interest from an architectural standpoint:—"Tathâgata"—this is one of the titles of Buddha—"forthwith "spread out his *sanghâti* on the ground as a "square napkin; next laid down his *uttarâsanga*, "and then his sankakshikâ; again over these he "placed as a cover his begging-pot, on which he "erected his mendicant's staff. Thus he placed "them in order, making thereby [*the figure of*] *a* "*stupa*.† The two men, taking the order, each "went to his own town, and then, according to "the model which the holy one had prescribed, "they prepared to build a monument, and thus "was the very first *Stupa* of the Buddhist religion "erected."‡ Professor Beal, in his *Romantic Legend of Sâkya Buddha*,§ relates the story of the two merchants with greater detail, and there gives their names as "Tripusha" and "Bhallika," these being the same as those in the Rangoon inscription—the *r* in the first of them being dropped out, which is a well-known peculiarity of Pali Sanscrit. There is good evidence to show that stupas existed before the time of Buddha, but this tradition of the two merchants has no doubt been invented at a later period to give a sacred origin, and consequent sanctity, to each of them.

The architecture of Burma comprises a strange medley of styles, derived from different sources; to the most of it an Indian origin has been ascribed, but the whole forms such a tangled web that it is a most difficult problem to work out the origins. Yule's—the late Sir Henry Yule—work still remains the best book on the subject, but he confesses that he had not then—now nearly forty years ago—the knowledge necessary to discover the sources from which the various forms were derived. Fergusson gave it as his opinion that it could only be done by a competent person on the spot. On this head he says:—"If any of "our 1091 idle young men who do not know "what to do with themselves or their money "would only qualify themselves for and carry out "such a mission, it is wonderful how easily and "pleasantly they might add to our knowledge." Such will, no doubt, be the case some day, when "The Thousand and One" young men have found this out.—Wm. Simpson.

(To be continued.)

* "Stupa," or "tope"—this last word being the one used in Afghanistan—is the same kind of structure as that in Burma to which we Westerns still apply the word "pagoda."—W. S.

† The square base here indicated of the Afghanistan topes is a marked feature of them. See Transactions R.I.B.A., 1879–80. The *sanghâti* is an article of the Buddhist monk's dress; and Buddha, as the typical ascetic, is represented in sculptures with the monk's costume, including the begging-bowl and staff, with which he made the model. The staff represented the pole on which were placed the *chattrs*, or umbrellas, which in the Trans-Indus topes formed a high spire above the dome.—W. S.

‡ Beal's Translation, vol. i. p. 47. § P. 239.

(7.)

STRESSES AND STRAINS IN GIRDERS.

The Beam; or, Technical Elements of Girder Construction. By William Lewis Baker, A.M.I.C.E. [*Chapman & Hall, Ld., London.*]

This book has been written to facilitate the working out of stresses and strains in girders of all kinds solely by means of algebra and geometry, without the use of the more complicated mathematical formulæ contained in other works. The author gives numerical instances, and proves the mechanical rules from them.

The first four chapters deal with simple definitions, elementary principles, and the determination of stresses in beams and cantilevers. Chapter V. is devoted to the strength and weights of materials, and the remainder of the book treats of the stresses in cast iron and plate, lattice, and bowstring girders, as well as their constructive details. For instance, on page 136 *et seq.* the details of the scantlings of a plate girder of 40 feet span, to carry an equally distributed load of 100 tons, are worked out by the author's methods.

The Board of Trade regulations, limiting the use of cast iron for under-railway bridges to the form of arched ribbed girders, are quoted; but, in view of the accident at Norwood Junction on the Brighton Railway, it may be doubted whether cast iron will be much used again in structures of the kind. The regulations relating to wind-pressure are also referred to, an allowance of 56 lbs. per square foot being demanded for viaducts and high bridges, as recommended in the report in 1881 by Sir John Hawkshaw, Lord Armstrong, and others, after the Tay Bridge accident.

The examples given demonstrate, in a very clear and simple manner, the method of calculating the stresses in all forms of girders, and of the adjustment of the scantlings of their various members to the work which they have to perform. Altogether, the book is of the most practical and useful kind, and may safely be recommended to students.

Richard F. Grantham.

THE BIRMINGHAM ASSOCIATION.

Local Educational Course.

Mr. W. Hale, President of the Birmingham Architectural Association, extracts from whose recently delivered Address were given in the last issue of *The R.I.B.A. Journal* [pp. 39-41 *ante*], has forwarded a table of the Course for architects established at the Birmingham School of Art, and of the two classes of Design and Construction held respectively at the offices of the President, Mr. Hale [*F.*], and of the Hon. Secretary, Mr. H. R. Lloyd [*A.*], of the Birmingham Association.

It may have been remarked that an addition has been made to the *Kalendar* of this Session, recently issued to members, by the introduction under each account of the Allied Societies, of a short notice of the educational facilities now to be obtained at the respective centres. A comparison of these facilities is not uninteresting. Birmingham and Glasgow appear to be ahead of the other Societies in the curricula established in those two cities; and it is most gratifying to be enabled now to give full particulars of the Birmingham Course, a description of that of Glasgow having been published in the last number of the last volume of the *Journal* [Vol. VIII. pp. 418-419]. It is moreover confidently stated that the Northern Association are engaged in providing for Newcastle and its neighbourhood a course of education very much on the lines of those so happily founded at Birmingham and Glasgow.

COURSE AT THE SCHOOL OF ART, BIRMINGHAM.

First Year.		
Monday.	7.15 to 9.15 p.m.	Freehand and outline from cast; model drawing; plant drawing in outline.
Tuesday.	7.15 to 9.15 „	Geometry; perspective.
Wednesday.	2.30 to 4.30 „	Elementary light and shade in flat washing and line.
Thursday.	7.15 to 9.15 „	Architectural history; elementary lectures by Mr. C. Morgan.
Friday.	7.15 to 9.15 „	Elementary design; ornament.
Second Year.		
Monday.	7.15 to 9.15 „	Modelled ornament.
Wednesday.	7.15 to 9.15 „	Architectural history; lectures by Mr. W. H. Bidlake, M.A., A.R.I.B.A.; Design in building (Mr. Bidlake).
Thursday.	7.15 to 9.15 „	Advanced design; ornament; sciography.
Friday.	2.30 to 3.30 „	Sketch drawing of ornament in line (light and shade) and wash.
„	3.30 to 4.30 „	
„	7.15 to 9.15 „	Building construction (Mr. F. Smith); working out designs for Wednesday evening lectures under Mr. Smith's direction.
Third Year.		
Monday.	7.15 to 9.15 „	Ornamental design (modelled).
Wednesday.	7.15 to 9.15 „	Architectural history; design in building (Mr. Bidlake).
Thursday.	7.15 to 9.15 „	Antique or life.
Friday.	2.30 to 4.30 „	Colour.
„	7.15 to 8.15 „	Building construction (Mr. Smith).
„	8.15 to 9.15 „	Working out designs for Wednesday evening lectures under Mr. Smith.
Fourth Year.		
Wednesday.	7.15 to 9.15 „	Architectural history; design in building (Mr. Bidlake).
Thursday.	7.15 to 9.15 „	Antique or life.
Friday.	7.15 to 9.15 „	Architectural design; working out designs to be submitted to Mr. Bidlake at Wednesday lectures.

CLASS OF DESIGN.

1892. Held at Mr. W. Hale's Office, 83, Colmore Row, at 6.30 p.m.

7th October. Subject: Design for Pair of Labourers' Cottages—to cost £300 per pair, cube at 4*d.*, living-room, scullery, pantry, tools, three bedrooms on first floor, plain brickwork and tile roof. For a country site. *Visitor*: T. W. F. Newton.

4th November. Subject: Chapel to a moderately sized country house. Suggested position off half-landing of main staircase, and with an approach from the outside, the altar to be commanded by a window in bedroom on one side; external windows in east and one side wall; a small organ at west end, arranged so as to be heard in the hall as well as chapel. Drawings required to a scale of 4 feet to an inch, plan, two sections and one elevation. Style and materials optional; cost unlimited. *Visitor*: C. E. Bateman.

2nd December. Subject: Details of last Subject to a scale of 1 inch to a foot, plan of floor and ceiling and one or more walls or parts of walls or fittings to be decorative rather than constructional, showing treatment of interior, either in relief or colour; seating to be chairs. Full-size details or cartoons may be submitted. *Visitor*: C. E. Bateman.

1893.

13th January. Subject: BUNGALOW, to have on one floor, two Sitting-rooms (one of which may also form Entrance Hall), Kitchen, Scullery, five Bedrooms, and necessary offices, &c. Plan, two elevations and section. Scale, 8 feet = 1 inch. *Visitor*: W. HAWLEY LLOYD.

3rd February. Subject: BUNGALOW, DETAILS OF LAST SUBJECT. *Visitor*: W. HAWLEY LLOYD.

3rd March. Subject: SCHOOL OF ART for a town of from 10,000 to 15,000 inhabitants, on a corner site.

1. The following rooms to be provided: General or Elementary Room, Lecture Room, Modelling Room, *Large Room for Antique, Life (in portion screened off) and Painting, *Master's Room, Assistant Teachers' Room, Office, Caretaker's Living Rooms, two Cloak Rooms, with Lavatories, &c., attached.

* *North light, or top light with a good roof pitch, is essential for each of these two rooms.*

2. Two Staircases desirable, though they may meet in the central hall.
3. The Entrance should be an important feature of the external decoration, and any decoration of the interior should be restricted to the entrance hall.
4. SCALE. General drawings, 8 feet to 1 inch. Details of that part of the building, including the entrance, and of any other important decorative feature, 1 foot to 1 inch. *Visitor*: H. H. MCCONNAL, A.R.I.B.A.

7th April. Subject: MEMORIAL CLOCK TOWER AND DRINKING FOUNTAIN (combined) for market place of a country town. Drinking Fountain to provide water for men, cattle, and dogs. Plan, Section and one Elevation. Scale, 4 feet to an inch. Sketch, perspective and full-size details. *Visitor*: F. BARRY PEACOCK.

CLASS OF CONSTRUCTION.

HELD AT MR. H. R. LLOYD'S OFFICE, 59, COLMORE ROW, AT 6.30 P.M.

Students are invited to ask questions relating to the subjects.

1892.

21st October. Subject: BRICKWORK. Characteristics of various bricks and mortars—bond, moulded, and ornamental brickwork. *Visitor*: W. HALE, F.R.I.B.A., *President*.

18th November. Subject: STONE. Various classes of stone, and uses for which they are suitable—resistance to weather, &c.—strength. *Visitor*: W. HAWLEY LLOYD.

16th December. Subject: STONEWORKING. Methods of working—economy of material and labour—designing of details of stonework. *Visitor*: J. A. COSSINS.

1893.

20th January. Subject: CARPENTRY. Various kinds of timbers and their uses—carpenters' construction—methods of jointing. *Visitor*: T. NADEN.

17th February. Subject: JOINERY. Timber in use for joiners' work—construction of joinery—methods of framing. *Visitor*: A. READING, A.R.I.B.A.

17th March. Subject: PLUMBING AND DRAINS. Plumbers' materials—methods of laying drains—traps and ventilation of drains. *Visitor*: W. KENDRICK.

21st April. Subject: SHORING AND FOUNDATIONS. Character of sub-soils and suitable foundations—shoring for under-pinning, settlements, &c. *Visitor*: JOHN J. BATEMAN.

THE LEEDS AND YORKSHIRE SOCIETY.

*Extract from Mr. Bulmer's Presidential Address.**

GENTLEMEN,—It is with great pleasure I rise on this, the 17th Anniversary of the opening Meeting of our Society's Session, to offer you my thanks for the honour you have conferred on me by election to your Presidential Chair. A twofold honour indeed, since you place me at the head of your Council, and enable me in due course to add my name to that list of tried and valued friends who have served you as Presidents in the past.

I would also assure you that the dignity of this chair, and the conduct of your business during the coming year, shall be duly and truly maintained and conducted so far as I am able; and I know I shall enjoy your generous consideration and assistance.

And now let me offer a word of welcome to all here whose presence is an indication of their interest in our cause. There be some to whom this Society owes much; men who have been with us from the beginning, who, undaunted by the strife of parties or the war of words, have stuck manfully to the ship and patiently piloted her into the calm waters where we now are. You, Gentlemen, old friends and rivals who have borne the burden and heat of the day, I especially welcome, and commend your good example to those who find a Society well established and

* Read at a Meeting of the Society held at Leeds on Monday, 21st inst.

equipped ready to their hand, and wot not of the labour which brought it into being; nor will I fail to include that largely increasing portion of our Members, who, coming from various parts of the county, make this society a Yorkshire society in fact as well as in name. To you, Sirs, we especially look to aid us with your active assistance, and by your co-operation to quickly further that consolidation of our profession so devoutly to be desired, and without which we are compelled to suffer harassing indignities, and a business competition totally at variance with the proper conditions of professional life.

To the Associates and Students I offer a warm and hearty welcome, and in truth you are to be congratulated on rapidly increasing facilities for acquiring theoretical and scientific knowledge to fit you for your calling, and I adjure you to remember, in the words of Artemus Ward, "That "now is the present time," there must be no "putting off until the morrow," else, when that opportunity which comes to all arrives, "the first "engagement," "a chance of partnership," "a "possible public appointment," you will be found wanting, and with shame will have to take the second place. This Society offers you a Silver Medal with five guineas from the President, and has increased its prizes for construction and design. It remains for you to do your part to win those prizes, and so possess yourselves of a visible sign that your studies have been properly pursued. Do not forget that in the *future* you will reap the profit of our labours *to-day*, and I ask you to press forward with ardent spirit and add your quota to the edifice we are building up. "A "castle for defence, a parliament house where we "may frame our laws, and a meeting place where "we may cultivate that good fellowship which is "the foundation of all Societies like ours."

To you, Honorary Members, a word of welcome and of thanks. The opportunity but seldom offers, and I will not neglect it. Since the formation of this Society the air has been rife from time to time with the sound of our discontent, because not one good architect could be found in Leeds; but "we have changed all that now," and it is you who have helped to throw oil on the troubled waters. At the present moment there are several public works in this town just finished or being erected from the designs of Leeds men, and I feel sure that a quiet undercurrent of thought existing amongst you has largely helped to forward this result, and where recourse has been had to competition, fairer and more honourable conditions than have usually obtained in the past have been secured for us by your sympathy. Holding such views, we naturally desire to see that Hon. Membership increased and strengthened; such a connection is, I think, beneficial to us all, for by strengthening our hands and increasing our position you are helping to create a body of men who will serve this generation and the next, as the designers of your home and business premises, your palaces and your temples, in a far more efficient manner than was the case in the past.

As the custom is on these occasions, we will now take a glance at two or three items of business which have come before the Council since Mr. Thorp addressed you from this chair; and first in order of time was a communication from the Leeds Master Builders, asking us to take into consideration the measuring of quantities with the view of amending the present practice, so as to facilitate the pricing of items and arrive at a uniform mode of measurement, also to prepare a Form of Contract Agreement which would be acceptable to them and fair to our clients. A committee was appointed and the matter received considerable attention, but before a verdict was arrived at we received a communication from the Institute asking us to delay our decision, as they had a committee revising the existing Form of Agreement issued by themselves, believing that it would be acceptable to us, and if adopted promote uniformity of practice throughout the Allied Societies; a view of the matter with which I cordially agree, and it will be evident to most of us that in these days of rapid transit, when the remotest parts of the island are close to us, there is no need for a plurality of Contract Forms.

The next business of general interest was the appointment of a committee to inquire if any steps could be taken to mitigate the wholesale destruction of architectural effect in our town by the present system of unrestrained street advertising. With this object in view the committee who had charge of this matter have entered into correspondence with some of the European capitals, with the view of ascertaining what powers are enjoyed in this direction by their respective municipal authorities, and letters on this subject have been addressed to the various provincial Societies inviting them to give the matter their consideration, as the existing licence is a matter of complaint in all our large towns. At an early date we shall have a report from the committee containing every information to be obtained bearing on the subject, together with a series of recommendations for the consideration of the Council, but on this matter I shall have more to say presently. Another subject of very great importance to ourselves as a professional body has recently come before us, but which is yet in the first "crucible of criticism," a proposal of the R.I.B.A. to map out the country into definite areas, of which the existing Societies shall be the centres. Such a scheme seems to me worthy of every support, and the most practical step which has yet been proposed to unite the scattered members of our forces into a working phalanx. The difficulties connected with the plan are only such as can be surmounted by a little energy and determination, and the result would be that every practising architect who could gain our recognition, however remote his situation, would know exactly to which Society to attach himself and become immediately in touch with our great central body in London, and thus obtain a complete expression of opinion on all matters concerning our future development. If the various Societies will take up this matter seriously, and approach each other in the spirit of goodwill and

with a proper feeling of allegiance to the Institute, I do not fear that the scheme, which to-day is "an airy nothing," will, ere another year is passed, be realised.

I should now like to bring to your notice the condition of our muster-roll, which, although it can in many ways be considered satisfactory, is yet capable of considerable augmentation in all its three divisions of membership. . . .

The list of Members shows a steady increase, and it is noteworthy that of the 50 existing members about one half are country members, and there can be no manner of doubt that these could introduce at least one each, and so obtain an increase of 25 members; and it is to this class we must look if there is to be any large accession to our ranks. The Associates have kept at a steady level during the past ten years, but considering the rapidly increasing educational facilities in Leeds, we may predict an extension of our student contingent. Whilst on this subject I will venture to suggest an idea which has occurred to me, namely, the amalgamation of the Leeds, York, and Bradford Societies as representing the united county. Sheffield is so far on the border that it might perhaps be taken as the centre of a large district lying to the south of it. There are doubtless two sides to this question, and it is one which, I hope, at some future time, we may discuss on its merits with those concerned, and try to arrive at a conclusion beneficial to all.

And now may I remind you that last session we had a much improved attendance at our lectures, and I hope during the one we inaugurate to-night we shall continue to keep up our reputation, and reward those who promote them and those who write them by a series of hearty and enthusiastic meetings. The policy of adopting practical subjects and treating them in a simpler style has, I think, led to this satisfactory result, and your Council have therefore kept this in view in preparing the present list. I should also like to encourage our students to look up the subject of each Paper, and attend the meeting prepared to ask questions to give rise to criticism and discussion, for it is desirable that all should have part in the re-union, and, if possible, contribute a mite to the general fund of knowledge. In this way you will reap additional advantages from this Institution, of which you are so important a factor, and which exists for your present and future benefit.

The central position and nature of our lecture-room has also, I think, found favour in the eyes of all, but I think now, as I have always thought, that we should have premises of our own where work can be carried on which we have to neglect at present. If the Associates of to-day will remember that they will be the Architects of to-morrow, and utilise this Institution to the full, your Council may be induced to consider the propriety of establishing convenient premises, which shall be a school for many generations of rising architects. Architectural casts, and a library of photographs of buildings, old and new, will never be stored by any other body, and such collections can hardly be brought together without a permanent lecture-room and museum. The accommodation required would not be expensive if limited to exactly what we want; if technical classes were held, a grant might be obtained from the County Council towards annual expenses, and it should not be a difficult matter in so wealthy a borough to obtain the very small capital which would be necessary to establish a permanent centre for this county organisation, and which, at a reasonable rate of interest, would be a safe and enduring investment.

Before turning to other matters of general interest, we may congratulate ourselves on the excellent condition of our treasury. Our financial position has been carefully watched and tended, and an economical system of future expenditure organised, so that the comfortable balance which we at present hold may not only be retained, but augmented to meet those exceptional charges which arise from time to time.

And now, Gentlemen, fearing you may be weary of these internal details, I will try to give an explicit answer to a gentleman who recently asked me, "Do you think your Society has done any good?" An unqualified affirmative can be the only answer, else, for the last seventeen years we have been labouring in vain! beating the air! visionaries indeed! unmindful of the substance! contented with the shadow! Those who have regularly attended our lectures, numbering about 120 up to date, on a variety of subjects connected with our profession, must have benefited thereby. Our Associates and pupils who earn our prizes and enjoy the educational assistance we afford, must see its uses when they reflect that seventeen years ago there were no prizes, no library, and no encouragement or assistance from their senior members. Those who during that long period have attended our Council meetings, have been building up a Society which (along with other provincial Societies) has become a powerful adjunct to the great central body, which has been quickened into more active being, and now, instinct with life and purpose, draws into its Councils representatives from all parts of the country where the spirit of architectural progress has displayed itself. No reflective mind can fail to see that we have constructed a powerful machine. It remains for us to use it to the best advantage, and so give additional evidence that we have not worked in vain.

G. Bertram Bulmer.

LEGAL & PARLIAMENTARY NOTES.

In the last issue of *The R.I.B.A. Journal* there appeared, in continuation of these Notes, which, for some time, have been prepared by Mr. Woodward, a short account of an action brought by Mr. F. Wallen, a district surveyor, against a firm of contractors [see p. 43 *ante*], to which the former objected as containing imputations not warranted by the facts. As will be seen at page 49 *ante*, Mr. Wallen spoke on the subject at the last

Business General Meeting, having previously handed in a letter which appears below, and to which Mr. Woodward has been asked to furnish an explanatory reply, in order that any discussion, deprecated by Mr. Wallen at Monday's Meeting, may not be prolonged. Mr. Woodward, in his account of the case, appears to have been inaccurately informed as to the submission of the plans of the building in question to the district surveyor—the facts being that Mr. Wallen, as stated by him, "got them from the builders at the earliest "possible moment," and that the architect did not submit the plans at all. The letter from Mr. Wallen and the reply to it by Mr. Woodward here follow :—

"What is a Warehouse under the Act?"

96 *Gower Street, W.C., 18th Nov.* 1892.

GENTLEMEN,—Whatever appears in *The R.I.B.A. Journal* should have the very highest authority, and papers dealing with the legal aspects of practice should be consistent with that position. The remarks under the heading of "Legal and Parliamentary Notes" should therefore have the following qualifications to justify their place in the *Journal*:—

1st. The question at issue should be clearly and precisely stated.

2ndly. The final decision should be stated with equal clearness; whence it follows that in cases where there is an appeal any comments had better be deferred until the appeal is decided.

3rdly. There should be an entire absence of all personal reflections.

Unfortunately, the note under the above heading in the *Journal* of the 10th inst. fails entirely to satisfy these elementary conditions, and the result is to misrepresent the case in question and to disparage the prestige of the *Journal*.

1st. The question is incorrectly stated in the title of the note and throughout—"What is a "Warehouse under the Act?" No such question arose in the case, except by the intrusion of the defending counsel, who no doubt thought it would assist him thus to confuse the issue. The only questions were—(*a*) Whether the words "or other "building used wholly or in part for the purposes "of trade," applied to such buildings as Messrs. Shoolbred's—in fact, to large shops. (*b*) Whether a horizontal fire-resisting floor is the same thing as a party-wall, the latter being prescribed in Sec. 27, Rule 4, as the division to be made in certain cases.

The same misapprehension occurs throughout, as in paragraph 2, where the writer says :—"The "architect might have been told at once, 'I con- "'sider your building to be of the warehouse "'class, and shall immediately proceed against "'you if you build the walls of less than the re- "'quired thickness.'" I raised no such question, nor would it, in my opinion, be tenable.

2ndly, I do not complain of the summary of the magistrate's decision contained in the 5th, 6th, and 7th paragraphs, but I feel bound to say that all comments on a case which is the subject of appeal, and therefore still *sub judice*, are entirely out of place. The previous case quoted by Mr. Woodward in his 4th paragraph was not quite the same as the one in question; and if it had been, the adverse decisions would only show how uncertain magisterial judgments in technical cases are, and how unwise it is to stamp them with additional authority by publication in the Institute *Journal*. I should say more on the case itself, and on Mr. Woodward's remarks, but I cannot follow his example in this respect. I agree with him in this one thing—that it is desirable to have the decision of the High Court upon it. It is astounding that in a matter of this importance, which has been in dispute since 1855, no authoritative decision has yet been come to. The following note occurs in my copy of the edition of the Building Act, edited by Mr. E. W. Lower, and published by Waterlow's in 1855:—"(Sec. 27, Clause 4.) It is doubtful whether "these terms do not include several large drapery "premises in the City which it is supposed have "hitherto claimed to be dwelling-houses, on the "ground that bulk was broken on the premises."

3rdly, all the defects referred to in the above remarks may result from error of judgment, and only show that more care and control seem to be needed in the admission of such Notes; but the second paragraph is an imputation upon me, and through me upon district surveyors generally.

The imputation is (*a*) that I did not intimate to the architect as soon as I might have done that I deemed his building irregular, and (*b*) that I did not take proceedings against the builders as early as I might have done.

(*a*) The drawings were shown me by the contractors, and not by the architect, in answer to my request for them, and I at once wrote to bot architect and builders that they were irregular a regarded cubical contents. I saw the architect several times on the subject, and suggested, and even urged three different ways of deciding our difference and one way of modifying his drawings, all of which he declined or omitted to adopt, although I pointed out to him the dilemma in which I considered his clients would be placed if the decision went against them.

(*b*) Of course no legal notice of irregularity could be given until the irregularity began to exist, and this was not "when the first thickness "of wall appeared above ground," but when the walls began to enclose a space exceeding the statutory cubical contents. As soon as this arose I served my notice, and the case was then taken up by the London County Council, and proceeded to a hearing in due time, after allowing for some adjournments to suit chiefly, I believe, the convenience of defendants' counsel. Meanwhile the building was carried to completion, my notice notwithstanding.

I do not know where the writer obtained the information upon which his remarks are based, a good deal of it, especially the erroneous part, not having been stated in the course of the case, and I regret that on application to him I have not obtained the information, but as the "Note" has unfortunately been inserted in the *Journal* I

must ask that this my reply be also entered, in order to place the present position of the case accurately before the members of the Institute, and to remove the imputations so carelessly and mistakenly made.—I am &c., FREDERICK WALLEN.

The Secretaries R.I.B.A.

MR. WOODWARD'S REPLY.

The broad lines of Mr. Wallen's complaint may be stated under three heads, to which I reply :—

1. *That I have misrepresented the case by dealing with it under the word "Warehouse."*

The Building Act as applied to such structures as that under consideration, knows of only two broad classes, viz., buildings of the dwelling-house class, and buildings of the warehouse class. That being so, Mr. Wallen received drawings showing by the absence of regard for the 216,000 cubic feet, and by the thickness of wall being in accordance with the schedule for the dwelling-house class, that the architect clearly did not consider that his building came under the warehouse class, and he so informed Mr. Wallen. No part of the Act provides, as regards cubic contents and thickness of walls, for any intermediate class of building.

2. *That I have imputed that he did not proceed as early as he might have done.*

The drawings were submitted to Mr. Wallen either at the end of March or the beginning of April, and on 8th April Mr. Wallen wrote that he found that the building exceeded the limit of 216,000 feet—thus showing clearly that the "warehouse" was in his mind. The architect took the opposite view, and I am informed by him that he invited Mr. Wallen to proceed against him in order that the question might be settled at an early stage. Mr. Wallen then said that he would apply to the London County Council for assistance. Six weeks after that—the building meanwhile fast proceeding—the architect reminded Mr. Wallen of his promise, and said that as he had not heard from him he presumed that Mr. Wallen had decided not to take any action in the matter. On 24th June the architect was informed that the London County Council had advised that notice to amend should be served when the building exceeded the statutory number of cubic feet. Thus from 1st April, say, to 24th June, the building was allowed to proceed before the decision of the Council was communicated to the architect; but I must ask Mr. Wallen to understand that I am not imputing this delay wholly to him.

3. *That I should have known that no legal notice of irregularity could be given until the irregularity began to exist, which was when the walls began to inclose a space exceeding the statutory cubical contents.*

Section XLV. of the Act, "Proceedings by District Surveyors in case of irregularity," throws no obstacle whatever in the way of applying for a summons at any period of the case; on the contrary the whole of Sections XLV. to XLVIII. breathe summary proceedings. "But," replies Mr. Wallen in effect, "I must wait till the building is finished or I cannot convince the magistrate that an infringement has taken place." Even admitting that in days gone by such was the view taken by district surveyors—not, bear in mind, endorsed by the Act itself—surely, when Mr. Wallen was asked to proceed, it would only have been an act of professional goodwill to have taken out the summons, and at the least tested a modern magistrate's view.—WM. WOODWARD.

OBITUARY.

James Williams, *Fellow.* 1824–92.

Mr. James Williams, whose death occurred on the 9th inst., will be remembered chiefly in connection with many of the post-offices erected in this country. Born 20th January 1824, he entered H.M. Office of Works, at the age of twenty-four. In 1859, he was appointed Surveyor for the erection of Post-offices. For twenty-five years he superintended, with conspicuous zeal and ability, this very important branch of the public service, and only retired from it in January 1884. Among the numerous buildings erected under his supervision may be mentioned the Post-offices at Manchester, Hull, Nottingham, Newcastle, Sheffield, and Bristol; in London the G.P.O. West, the Post-office, Bedford Street, and the Savings Bank, Queen Victoria Street. The County Court Buildings at Liverpool and Birmingham, besides a large number of smaller offices, were also designed and built under his superintendence. He was elected a Fellow of the Institute in 1878, and was well known to and highly appreciated by his professional brethren. His building in St. Martin's le-Grand has been deservedly praised by many.

J. Goldicutt Turner, *Fellow.* 1841–1892.

Mr. Goldicutt Turner, whose death occurred on the 12th inst. in his fifty-first year, was articled to his father, the late John Turner. For two years he was an assistant to the late Sir Horace Jones, and in 1864 became a partner with his father. Among the works executed under his direction are the following:—the restoration of St. Mary's Church, Little Laver, Essex; the enlargement of Trinity Church, Touchen End, Berks, and All Saints' Church, Oxford; the Parsonage, All Saints; schools at Eye and Dunsden, Oxfordshire, and at Woodley, Berks; warehouses at Queenhithe and Chelsea, and private houses at Stroud Green and elsewhere. Mr. Turner obtained the Institute Certificate to act as District Surveyor in 1870, and was for many years surveyor for East Islington. He was elected a Fellow in 1874. For several years he served on the Council of the Architects' Benevolent Society, having become a subscriber to its funds in 1866; and in 1876 he succeeded his father as Hon. Secretary, resigning his official duties in 1880.

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THE JOURNAL OF PROCEEDINGS OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

VOL. IX. NEW SERIES — No. 4 — 8 DECEMBER 1892

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THE AUTUMN EXAMINATIONS.

Presidential Statement to the General Meeting, 5th December 1892.

The Preliminary.

GENTLEMEN,—I have much pleasure in reporting the result of the Preliminary Examinations which were held in London, Manchester, and Bristol, on the 15th and 16th of last month. As you have been already informed from a note in our *Journal*, some ninety-seven applications were made for admission to this Examination, and ninety-two of them were new applications—the remaining five being from candidates relegated at previous examinations. Of the ninety-seven, forty were exempted, thirty-five passed, five were relegated to their studies (four in all subjects and one in certain subjects) for a period, two did not pass, and fifteen either withdrew their applications or did not present themselves for examination. Thus, with the forty exempted candidates, seventy-five have passed and are registered as Probationers. The names and addresses of these gentlemen, whose ages vary from sixteen to twenty-six years, are given in the following table, and in alphabetical order:—

THE PRELIMINARY EXAMINATION, NOVEMBER 1892.

To Qualify for Registration as Probationer (75).

Name of Probationer	*Address of Probationer*	*Name of Master*
George Pemberton ALLEN	1, Dean's Yard, Westminster, S.W.	Mr. F. W. Hunt
Rupert Claud AUSTIN	c/o Barry Cleveland, Esq., 4, Rock Road, Cambridge	Mr. W. M. Fawcett
Lionel Newman BARRETT	15, Avenue Rd., Regent's Park, N.W.	Mr. Latham A. Withall
Ernest Henry Alderson BARRON	16, Townsend Crescent, Plymouth	Mr. H. J. Snell*
Samuel Cousins BATTERSHILL	6, Monte le Grande, Heavitree, Exeter	Mr. James Crocker
Paget Logan BAXTER, B.A.Dublin	Yelverton Chambers, Bournemouth	Messrs. Lawson* & Donkin
Percy William BROWN	Thornton, Sandown, Isle of Wight	Mr. James Newman*
Francis William Ashton BUCKELL	The Pallant, Chichester	Mr. H. Huntly-Gordon
Harold BUSBRIDGE	96, Herbert Road, Plumstead, S.E.	
Thomas Hutchings CARDER	Newport Terrace, Millbrook, Plymouth	Mr. Charles King*
Samuel CHESNEY	The Manor, Willenhall, Staffs.	Mr. Benjamin Baker*

N.B.—The asterisk affixed to a master's name denotes that he is neither a Fellow nor an Associate of the Royal Institute of British Architects.

Name of Probationer	*Address of Probationer*	*Name of Master*
Frederick Billinghurst CHESTER	Observatory House, Honor Oak, S.E.	———
Thomas Herbert Edgar COAD	89, Shepherd's Bush Road, W.	———
Horace DAN	44, East Street, Faversham	Mr. John Drake*
Henry Ernest DANE	19, Preston Street, Faversham	Messrs. Stenning & Jennings*
Henry Edmund DAVEY	1, Victoria Road, Choumert Road, Peckham, S.E.	Mr. W. R. Lawrence*
Ernest Edward DEVEREUX	50, Lovaine Place, Newcastle-on-Tyne	Messrs. Freeman* & Robins*
Samuel Stevens DOTTRIDGE	Melita, Westbourne Road, Bournemouth	Messrs. Lawson* & Donkin
Henry Archibald DOUGLASS	14, Clifton Terrace, Brighton	Mr. L. C. Cornford
Arthur James DRIVER	Hillside, Montrose	Mr. John Sim*
John Frederick DUTHOIT	Littlebourne, Dover	Mr. W. J. Jennings*
Norman ELLIOT	South Villa, Lampton Rd., Hounslow	Messrs. Jennings & Bucknall*
Henry Tutty FOWLER	24, West Street, Wattsfield, Kendal	Mr. Curwen*
Reginald Arthur GANT	54, Church Rd., St. Leonards-on-Sea	Messrs. Gant & Slatter*
William Frederick Baron GATES	Wing Park, Leighton Buzzard	Mr. M. P. Manning
Walter Henry GILBERT	110, Railway Terrace, Rugby	———
James Jameson GREEN	Runnymede, Marine Park, West Kirby, Cheshire	Messrs. C. O. Ellison* & Son*
Edward HALE	King's Norton, near Birmingham	Mr. William Hale
Arthur HARRISON	99, High Street, Stockton-on-Tees	Mr. H. Weatherill*
James Stockdale HARRISON	7, St. Martin's East, Leicester	Mr. Stockdale Harrison
Cyril HASLAM	Warren House, Caversham	Messrs. Charles Smith & Son
Charles Harold HEATHCOTE	Clarendon House, Buxton	Mr. Charles Heathcote
Thomas Francis HEWITT	Glenhome, Union Rd., West Cowes	Mr. E. A. Swane*
Robert Vinall HUNT	18, Dorset Square, N.W.	Mr. F. W. Hunt
Charles Dearman JAMES	36, Mannville Terrace, Bradford	Messrs. T. H. & F. Healey*
Charles KENSINGTON	Emsworth House, Copthorne, near Crawley, Sussex	Messrs. J. Berney* & Son*
William Winder LEE	50, Prospect Road, Scarborough	Messrs. Hall* & Tugwell
Percy LEEDS	7, Gilmore Road, Lewisham, S.E.	Mr. A. H. Hoole*
William LONGBOTTOM	11, Grassington Terrace, Keighley	Messrs. Barber & Hopkinson*
Gilbert LOVE	Oolite House, Odd Down, Bath	Messrs. Browne & Gill
Hugh Patrick Guèrin MAULE	Altair, Sutherland Road, Ealing, W.	Colonel R. W. Edis
Wilfred MOORE	Fairfield, White Cross, Hereford	Mr. G. H. Godsell*
Richard MORLEY	1, Welbury Drive, Bradford	Messrs. Morley & Woodhouse*
Percy MORRIS	47, St. John's Park, Blackheath	Messrs. Stock, Page & Stock
Charles MURRAY	The Elms, Montrose	Mr. John Sim*
Sidney NAISH	22, Ranelagh Road, Winchester	Mr. Thomas Stopher*
Leonard Erle NEWCOMBE	Penketh, near Warrington	Mr. John E. Wright*
William Grosvenor OVERTON	12, Marshall Place, Cheetham Hill, Manchester	Mr. R. F. Matthews*
Richard Herbert OWEN	293, Clapham Road, S.W.	Messrs. Jennings & Bucknall*
Henry William Hetherington PALMER	Belsize, Sutherland Road, Ealing, W.	Mr. F. H. Jones*
Ernest Bryham PARSONS	North Waltham, Hants.	Mr. H. J. Keats*
Llewelyn Bankes PRICE, B.A.Oxon.	20, Great Coram Street, W.C.	Mr. Charles Henman
George Alexander PYOTT	5, Parkneuk Place, Motherwell, Lanark	Mr. Alex. Johnstone*
Walter Vernet QUILTER	19, Vardens Road, Wandsworth Common, S.W.	Mr. S. Gambier Parry
William Hector REED	6, Summerhill Place, Newcastle-on-Tyne	Messrs. Lamb,* Armstrong & Knowles
Percy Tom RUNTON	The Ivies, Westbourne Avenue, Hull	Mr. W. A. Gelder
Charles Phillips SANDERS	1, St. James's Villas, Winchester	Messrs. Mitchell,* Son,* & Gutridge*
George O. SCORER	Abercorn Lodge, Upper Hamilton Terrace, N.W.	Mr. R. Selden Wornum
Charles Arthur Julian SHARMAN	195, South Lambeth Road, S.W.	Mr. J. Thame Sloan*
Edward Graham SIMPSON	100, St. Martin's Lane, W.C.	Messrs. W. B. Simpson* & Sons*

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Name of Probationer	*Address of Probationer*	*Name of Master*
Arthur Mobray Sinclair	55, Rowan Road, Brook Green, W.	Mr. Horace Cheston
Charles Soutar	Gowan Bank, Provost Rd., Dundee	Messrs. C.* & Leslie Ower
Vincent Steadman	75, Alma Road, Clifton, Bristol	Mr. W. Edward Jones
Edgar Stones	Warwick Lodge, 232, Amhurst Road, West Hackney, N.E.	Mr. R. M. Roe
Henry Charles Hardiman Tarr	Roseneath, Willsbridge, nr. Bristol	Mr. F. Bligh Bond*
Stephen Leonard Tennant	Kingsfield, Sale, Cheshire	Mr. C. H. Heathcote
George Thomson	20, Lyddon Terrace, Leeds	Messrs. Perkin & Bulmer
Charles William Tomlinson	Market Place, Pontefract, Yorkshire	Mr. Thomas Howdill*
Henry Francis Traylen	15, Broad Street, Stamford	Mr. John C. Traylen
Harry Inigo Triggs	33, Priory Road, Bedford Park, W.	Mr. Peter Dollar
Harold Conybeare Trimnell	Elmhurst, Malden, Surrey	King's College, London
Frederic William Turton	Oakley, nr. Brewood, Staffordshire	Mr. Joseph Lavender
Edward Joshua Watson	12, The Crescent, Gateshead	Mr. F. W. Rich*
Herbert Lawrence Wettern	72, Evening Rd., Stoke Newington	Mr. H. W. Rising*
Henry Knowles Wright	Earlsleigh, Groby Road, Bowdon, Cheshire	Mr. C. H. Heathcote

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In reference to this Examination I am glad to be able to inform the Institute that, for the first time since the establishment of the Preliminary Examination, six out of its eight subjects have been entrusted to a professional examiner, who has set the questions and marked the answers; and for whose services a fee is to be paid according to agreement. The assistance thus obtained has proved so valuable that it will be sought in future Preliminary Examinations, it having been found impossible for members of the Board to devote sufficient time to the work.

The Intermediate. The result of the Intermediate Examination held in London, on the 15th, 16th, and 17th of last month, was announced by me at our last General Meeting. Suffice it to recapitulate that of thirty Probationers who applied, twenty-four were admitted to the Intermediate Examination and thirteen passed, and were at once registered as Students of the Institute.†

The Qualifying. The Examination in Architecture, to qualify for candidature as Associate, was held last week; and, this autumn, in London only. There were fifty applications, of which ten were from candidates relegated at previous examinations. Nine were not admitted, and five others either withdrew their applications or did not attend the examination; and of the thirty-six who did attend, seven have been relegated to their studies in all subjects, seventeen others in certain subjects, while twelve have passed—that is to say, exactly one-third of the number examined. The names and addresses of the gentlemen now qualified for candidature as Associate are given in the following table, and in alphabetical order :—

THE EXAMINATION IN ARCHITECTURE, NOVEMBER 1892.

To qualify for Candidature as Associate (12).

ALLEN: Theophilus Arthur	3, Duke Street, Adelphi, W.C.
BRAKSPEAR: Harold	The Priory, Corsham, Wiltshire.
CRESSWELL: John James	Victoria Chambers, Grimsby.
CUMMING: William Nicholson	7, Bellevue Place, Edinburgh.
HILL: Alfred Ryshworth	4, Park Dene, Bradford.
JOHNSON: William Edwin	Fern Villa, St. James's Road, Upper Tooting, S.W.
JONES: John Humphreys, B.A.Lond.	9, Moorgate Street, E.C.
KEITH: John Melville	55, Achilles Road, West Hampstead, N.W.
RYAN-TENISON: Arthur Heron	7, Gt. College Street, Westminster, S.W.
SARGANT: Lionel Edgar Alfred	8, Park Road, Wimbledon.
WARD: William Henry	18, Lyndhurst Road, Hampstead, N.W.
WATERHOUSE: Percy Leslie, M.A.Cantab.	(Tasmania) Leonard House, Upper Tulse Hill, S.W.

† See, for their names and addresses, page 45 *ante*.

As regards the Examination in Architecture just held, I regret to note that the Board have been compelled to relegate for further study an unusually large proportion of the candidates they admitted, on account of the inferior quality of the work done during the Written, Graphic, and Oral Examination. As the questions set and the subjects selected this autumn presented no special difficulty, and as the standard of excellence has not, on this occasion, been raised, the Board can only attribute the result to a want, on the part of the majority of the candidates, of definite study, and to a neglect of many of the standard books recommended for their guidance. In fact, preference seems to have been given by them to the more popular manuals, for which many of the higher and better works of reference appear to have been discarded.

Conduct of the above.

The moderators who acted in these three examinations have had the thanks of the Board of the Examiners voted for their services. Mr. Walter Spiers attended during the Preliminary and Intermediate Examinations held in London, and Messrs. F. T. W. Goldsmith, C. B. Hutchinson, E. W. Poley, and H. W. Wills, all Associates who have passed the Qualifying Examination, attended during the Examination in Architecture. The Bristol Society appointed a committee to act as moderators in the Preliminary Examination held in Bristol; and the Manchester Society did the same for that held in Manchester. To both these Allied Societies the Institute is indebted for excellent assistance.

Ashpitel Prize.

The Board's recommendation for the award of the Ashpitel Prize has been already made, and the Council have approved and adopted it. From among the sixty-one gentlemen who have passed the Examination in Architecture during the current year, ending 31st December next, Mr. Alfred Charles Houston, of London, 27 years of age, who passed in March, and who was a pupil of Mr. James Edmeston, is awarded the Ashpitel Prize, which is a gift of books to the value of ten guineas. Another gentleman, 22 years of age, who passed this November, has been specially commended to the favourable consideration of the Council for the excellence of his work. His name is Mr. Harold Brakspear, of Manchester; and the Council have awarded him a prize of books to the value of five guineas, in recognition of his merits.

I beg leave, Gentlemen, in conclusion, to move that a hearty vote of thanks be accorded to the Institute Board of Examiners in Architecture, and to the Bristol and Manchester Allied Societies, for their services on the occasion of these autumn Examinations.—J. Macvicar Anderson.

PROCEEDINGS.

Monday, 5th December 1892.

[Mr. Macvicar Anderson, *President*, in the Chair.]

Third General Meeting (Ordinary).

At the conclusion of the preliminary business of the Meeting, the President formally introduced Mr. Emerson, who had been elected to the office vacated by Mr. Aston Webb.

The PRESIDENT.—Mr. Aston Webb having resigned the position of Honorary Secretary, we have the pleasure of having his successor with us to-night, for the first time occupying his secretarial chair. I will ask you to give him a hearty welcome on the commencement of his duties. (Cheers.)

Mr. WILLIAM EMERSON [*F.*].—I am very sensible, Gentlemen, of the honour you have done me in electing me to the post of Honorary Secretary. I can hardly expect to fill it as well as my predecessors, Mr. Macvicar Anderson, who is now our President, and Mr. Aston Webb, who was much more intimately acquainted with the Institute than I have ever been. I can only say that I will use my best endeavours to deserve the confidence you have placed in me.

SOME PROBLEMS OF TOWN & CITY DEVELOPMENT.

Abstract of Mr. Street's Paper.

After a few introductory remarks the author said the subject of open spaces might be considered more a sanitary or a surveyor's question than one for architects; but that was hardly so, as the extension of building generally created the necessity for open spaces, and therefore new buildings should be designed with regard for open spaces. Modern practice, until the last few years, had been too much the opposite. In the extension of any large city, architects and public authorities should show more consideration for the surroundings and requirements of the population, and should work in accordance with an approved plan for the future development of such city. A great

enemy to any such beneficial development had been the land-grabber, who, having purchased land in the outskirts, planned as many streets as possible for the sake of the ground-rents. It might be said that this did not affect architects; but he considered it was within the power of architects to advise or influence public bodies, and to so direct public taste, that enactments might be passed providing for the development of cities in accordance with a recognised and wholesome scheme. Good main thoroughfares, with ornamental and recreative open spaces at convenient distances between them—the minor streets being sufficiently wide—were to be desired. Many might exclaim that the attempt would improve picturesqueness out of the streets and produce monotony; but it was not inevitable; the main avenues should be lined with buildings worthy of architects, the adjacent streets be healthily and brightly finished, and intermediate and diversified recreation grounds be provided. In certain cities regulations existed to prevent the building of dwellings outside certain limits until the intervening spaces were filled up in accordance with an agreed upon scheme. Such stringent regulations might at first frighten those who looked upon so-called natural developments alone as being beautiful; but that was an open question. A square or rectangular development, as of American cities, the author thought, was unnatural, the tendency in all cities being for the traffic to pass and repass upon lines radiating from the centre where the principal business was conducted. The impression given by such radial development was far from unpleasant. It had been suggested that districts should be allotted for labouring classes. Mr. Street considered the separation of the classes neither healthy nor natural. In laying out a district it was better for the health of the dwellers in the main avenues that in the minor streets adjacent the buildings should be less in height than those in such avenues, the air at the back of the higher buildings being open to the circulation of currents at a lower level, and not so stagnant and unhealthy as when the space was enclosed on all sides by lofty buildings. In laying out open spaces the dank, circumscribed, and "prisony" look general to London squares should be avoided; and the provision of large parks, stiff, flat, and uninteresting (to repeat, said Mr. Street, the words used by the author of one Paper read at the Congress of Hygiene), was not at all what he intended; with intelligence, a wild space could be transformed to the purposes of a park with great success. At the Congress it had been proposed that before further building was permitted around a congested district a zone of clear space should be provided, and that additions beyond should be in the form of picturesque suburbs: the effect, however, would be to still further augment the value of land at the centre, and to create differences of value of contiguous plots of land to such an extent that it might be advisable to expropriate property in such land and invest it in the State, which should lease and use it for the benefit of the nation. Railways were not to be forgotten, and the author thought that for the different main lines to come to, and round, the city, but not through the city, was better than to have a central railway station. The district or suburban traffic could be taken by underground lines or tramways. The author had been informed that the consideration of possible developments of cities was wholly visionary. That was hardly a correct view, for they had seen the change made by Baron Hausmann in Paris, and great changes were now taking place in the chief cities of Italy, where, unfortunately, buildings of great archæological interest were being swept away in order to construct big, rectangular thoroughfares. The Continental representatives at the Congress of Hygiene approached the subject with much lighter hearts. Herr Lechner, of Buda-Pesth, thought the best plan was to pull down the old town and build an entirely new one in its place; while Herr Stubben, the city architect of Cologne, had urged the establishment of a comprehensive building plan, and had stated that in any future extension of Cologne 5 per cent. of the land would be reserved for parks, another 5 per cent. for plantations in streets and open places, and of the remaining 90 per cent. 60 per cent. would be given to buildings and 30 per cent. to streets. Mr. Street had prepared a sketch showing a type of what might be considered the natural direction of the development of a city, the earliest condition being a settlement of a mercantile community upon the bank of a navigable river. As the settlement tended first to spread along the bank, the early form would be that of a portion of an oval with the two centres parallel to the bank, and from that nucleus the town would increase in curves parallel to the original oval, but with roads at convenient intervals leading towards the centre, while provision for open spaces or lungs could be made. Having quoted 45 Vict., cap. 14, sec. 14, with reference to air-space round buildings, Mr. Street said it would strike any one that the provision of practically a strip of open space, ten feet wide, at the rear of a building, while it might be sufficient for some buildings, would be manifestly inadequate if the building was of very great height, and, in his opinion, any regulation in regard to open space should have reference to the height of the buildings. The revised regulations, he thought, might be that no building whatever should hereafter be erected of a greater height than the width of the street, and that every building in the rear thereof should have a strip of land belonging to it of a minimum width equal to one-fourth the height of the building; the height of the one-storey building to be allowed in the open space should also be limited, twelve feet to the eaves being the extreme limit. By the London County Council (General Powers) Act, 1890, no building was to be of greater height than ninety feet, and in the Draft Suggestions for a new Building Act, generally assented to by the Institute, that maximum height was reduced to seventy-five feet, and might, he thought, be further reduced with advantage. Under those Suggestions, when streets fifty feet wide ran in parallel lines, and the buildings were forty feet deep, there

would be two forty-feet front buildings, and two twelve-feet-six open spaces; the distance between cross-streets being one hundred and five feet, or one hundred and fifty feet from centre to centre. One great blot on that arrangement, however, would be that houses in the main thoroughfare would hinder the access of air to the space at the back of the houses on the cross streets, and therefore there should be a minimum width of twenty-five feet between the backs of houses in the main road and the sides of those in cross-streets. The *Model Bye-laws* recommended a minimum width of twenty-five feet for all houses of a height of thirty-five feet, or more, and if that were generally adopted air-space around buildings would be liberally provided for. With reference to street improvements the width of forty feet seemed to be fixed for subordinate developments, and in some thoroughfares recently constructed the width of seventy feet had been adopted. Subways should be constructed under all main streets, and the several gas, water, telegraph, and telephone companies paying rent for the space occupied by them would practically repay the cost of construction. Wood pavement he considered hardly an unmitigated blessing, while if asphalte were not so resonant and slippery it would be difficult to conceive of a better paving. Having alluded to the desirability of getting rid of sky-signs, and of a law to limit the size of the lettering of names upon or above shop fronts, Mr. Street turned to the question of dwellings for the labouring classes, emphasising his previous remarks on the want of wisdom in separating the classes, and deprecating the erection of large block dwellings. It had been proved at the late Congress that London, far from being overcrowded, did not accommodate one-eighth of the number of people that was possible on a similar area, as four hundred persons could be housed in block buildings on one acre; at present, the proportion was 54·4 per acre, and the author thought if the erection of lofty blocks was at all likely to bring about such theoretical limits, that of itself ought to be a sufficient reason for discontinuing their erection. A great difficulty was to provide not only light and air but sunshine, and the provision for it should be one of the considerations when laying out small tenements, while to make them pretty or beautiful required more real genius than in dealing with buildings where the expenditure was less restricted.

Discussion.

Mr. WILLIAM WOODWARD [*F.*]. — Mr. President, having for many years taken a great interest in the subject brought before us this evening, as some of you will remember who heard my Paper in 1885, and the Paper I subsequently read at the Surveyors' Institution, I should like to be permitted to thank Mr. Street for his very thoughtful Paper. With regard to open spaces, the open spaces more recently provided by the Building Act would be, I think, sufficient, but for an important clause which provides that such open spaces are not to be enforced upon sites which have before been occupied wholly or in part by buildings. As the greater part of London has been occupied wholly or in part by buildings, of course the object of that clause, or its supposed object, has necessarily fallen to the ground. With regard to open spaces generally, it is impossible to speak of them without mentioning the name of the then Lord Brabazon, the present Earl of Meath, and the wonderful work he has done in London in taking advantage of every little open space, laying out churchyards and burial-grounds, and doing the immense amount of good work which he has done for the benefit of maintaining what Mr. Street has termed, and what we all know to be, the lungs of London. (Applause.) With regard to open spaces I may say that our forefathers had a very excellent idea when they laid out their new estates, particularly in the west central district of London. There, if you look at the plan of London, you will find that the open spaces provided by the squares are certainly of the most healthful description, and no doubt were formed by our predecessors not only as providing lungs for London, but to add to its beauty by providing open spaces for gardens; and although the gardens may be neglected, there is the provision, and it rests to a large extent with the inhabitants to make those gardens so beautiful that Mr. Street and others would not have reason to quit them, as he and others are now obliged to do. A further provision in open spaces is shown by the plan by Sir Christopher Wren. Or, rather, I may say that at the time Sir Christopher Wren was engaged in preparing that plan he was ordered to report upon an Act of Parliament passed in the reign of Charles II., which provided that there should be an uninterrupted space of 40 feet all along the Thames from London Bridge to the Temple, to provide a quay; and he was instructed by the King to report upon the obstructions which had then taken place upon that quay. He did report, and subsequently so much of the Act as provided for that open space was repealed. Another provision for open space has been mentioned in this Institute before, and that is, the provision made for the Marylebone Road. It was laid down that forecourts 50 feet wide should be maintained, uninterrupted by buildings, along both sides of the Marylebone Road. But encroachments have been made upon these spaces, encroachments due entirely to the negligence, or worse, of the local authorities. (Hear, hear.) With regard to the question of street improvements, we have to thank the Corporation of the City of London for that magnificent street improvement, the Holborn Viaduct, and we have to thank the Metropolitan Board of Works for the grand Thames Embankment. But when we have dealt with those two authorities I think we are almost at the end of the recent street improvements. What has the London County Council done during its term of office to effect street improvements in London? Magnificent projects have emanated from Spring Gardens. Those projects have been supported by the public, but have been abandoned, not because the streets were not wanted, but because of some insane propositions on the part of the London

County Council rulers, that there must be "betterment," or "taxation of ground rents" (with which they have nothing whatever to do); and those matters having been imported into this question of metropolitan street improvements, have resulted in London being entirely without recent street improvements, a loss occasioned solely by the desire to get at the ground landlords. There is a street that was laid down upon the plan which accompanied a Paper read by me in this room—a street from Southampton Row to the Strand, terminating in a magnificent circus at Wellington Street. That street, to a large extent—the first grand proposal of the London County Council—has been adopted as a line of thoroughfare, and I need scarcely say that I have received many letters from members of the London County Council, thanking me for the idea. You, Sir, have made observations upon that street which commended themselves to every one, and I am sure every one in this room desires that as soon as possible that thoroughfare should be carried out, with the minor alterations which have been suggested in this room and in the public press. There is one other public improvement which has been from time to time supported by the Institute. It is the thoroughfare which was proposed by the Institute, and supported by many gentlemen in this room, and particularly by my friend Mr. John Robinson, who is not a member of this Institute. I refer to that splendid idea of opening up the Strand through to the Mall of St. James's Park. It simply involves a demolition of a few houses in Spring Gardens, and then you have one of the finest public thoroughfares in London, opening up the Strand right away through to Buckingham Palace. You attended, Sir, I believe, a deputation to the then First Commissioner of Works; two successive Governments have promised that the scheme should be carried out, but at the present moment there it rests where it did so many years ago. With regard to open spaces, it will give this Institute some idea of how London suffers when I remind them that in Paris there is a provision of one acre of open space to every thirteen inhabitants; in Vienna one to every hundred, and in Inner London one to every thousand. That, I think, will appeal, as far as statistics can, in a very forcible manner to the necessity that there is in London of providing, as far as possible, more open space. With regard to Mr. Street's observations as to Italy and improvements there, I am sure those in the room who have recently visited Rome must have been struck with the truth of his remarks with regard to the public improvements that have been carried on there. Those improvements and suggestions are for the provision of dwellings for the working classes; but, instead of making provisions for the working classes, they have simply built huge palatial mansions quite unfit for the working classes, and with the result that large portions of Rome have been cleared away, and an immense debt has been thrown upon the Municipality of Rome. With regard to Mr. Street's plan, I am sure he will pardon me if I suggest that, from an architectural point of view, it would scarcely commend itself for a large city, and for this reason I think it is too much broken up into small blocks. With regard to the height of buildings, I am very sorry to find that there is any disposition to decrease the height of buildings. When that question was before the Lords' Committee I supported the height of 90 feet—for this reason, that the height of the building should depend entirely upon the width of the thoroughfare. The height of the Foreign Office in Whitehall is, I believe, about 90 feet, and I am quite sure that those who know the Foreign Office in Whitehall will agree that, owing to the fine width of the thoroughfare, it is not by any means too high a building.

MR. LEWIS ANGELL [*F.*].—As chairman of the Science Committee I congratulate our honorary secretary on his able and suggestive Paper; the more so seeing the circumstances under which it has been produced, at which Mr. Street has hinted. Last session the Committee determined to submit a review or *resumé* of the outcome of the Hygienic Conference as affecting architecture, and we deputed to Mr. Street, and he accepted, the duty of writing that Paper. But when the Committee resumed its session the other day, we suddenly came to the conclusion that the Hygienic Conference was now a very stale matter, and although Mr. Street has had the vacation in which to think his Paper out, we asked him to change his subject almost entirely; and at very short notice he has done so, and has given us this Paper. Of course the Committee appear to-night rather as hosts, and we invite a discussion from the Institute at large; but I may say of Mr. Street's Paper that the title of it might have been rather a dream of fair cities, and Mr. Street does not appear to have a very robust faith in his own aspirations, for he quotes George Eliot's remark that it is of "no use making an almanack for the "millennium," which reminds me of an observation in *The Times* the other day with reference to the methods of the London County Council, in which it was remarked that the London County Council were endeavouring to create a new heaven and a new earth (laughter). Mr. Street has quoted the precedent of Baron Hausmann. Well, under the Empire, the local government of Paris consisted of a triumvirate of the Emperor, the Prefect, and the architect, which I venture to think a very much better form of government than London vestrydom (laughter). The Emperor discovered Hausmann at Bordeaux, and took him to Paris. Hausmann took with him from Bordeaux his friend Alphand, and between them, as we all know, they transformed Paris into its present condition, making it the pride of France, the delight of the English, and the heaven of the Americans. Well, that is a result which we cannot possibly expect in England. A modern and an artistic London, like the new Paris, or the new Berlin, or the new Vienna, is impossible under the British constitution. Continental methods do not fit in with English notions and with English instincts. England, to paraphrase a remark of the late Bishop of

Peterborough, would rather be free than beautiful. With some thirty years' experience as a municipal architect and surveyor, I really am satisfied that nothing short of a fire of American proportions, or a Japanese earthquake, will bring about any great new departure such as has been shadowed in the Paper of Mr. Street. I am inclined to agree with Herr Lechner, who was quoted by Mr. Street, that the best way to improve a city is to pull it down and begin anew. A gentleman has just referred to the great squares as open spaces. It is the fashion in these progressive days to denounce ground landlords; but, after all, such beauty and open spaces as we possess in London are due to the ground landlords. (Applause.) Take for instance the properties of the Duke of Westminster, the Duke of Portland, the Duke of Bedford, Lord Cadogan, and others. It is entirely to these plutocrats, if you will, that we owe what beauty we have. The land-grabber has been referred to by Mr. Street. We know what he has done, to create slums and jerry-builders whom we now wish to extirpate. After the fire or the earthquake, I suppose the municipalisation or the nationalisation of the land is the next remedy. (Laughter.) These are Socialistic suggestions, of course; but I am bound to say, with some experience of the democratic labour representatives in our own municipal institutions, that they are great promoters of public improvements. Of course, they have everything to gain, and nothing to lose. They do not pay the piper—(laughter)—but they are most energetic in advocating improvements. With regard to the radial development which Mr. Street has referred to, I cannot quite see, I am bound to say, that there is any great difference between his plan, except as to the radial lines, and an American rectangular city, or a city like Turin, for instance. In one form it becomes rectangular in every direction. Really, if you look at the map of London, you will find that it is radially developed. Taking the North of London, you first of all get the Commercial Road, I think it is; then you get the Whitechapel Road, and then you get the City Road—all tending towards the Mansion House. Then you get Aldersgate Street, then you get Holborn and Oxford Street, and then you get the Strand. Then take the other side of the water. All the main thoroughfares are tending towards the bridges, with one centre at the obelisk in Lambeth; so that London has been practically radially developed. With regard to air-space, of course London is under exceptional circumstances as to property and value. It has grown up, and cannot very well be altered; but I do not think enough air-space is required by the Act for London buildings, and I am very sorry to find that the immediate suburbs of London wish to approximate their building regulations to those of London. Now the object of the very admirable *Model By-laws* issued by the Local Government Board is, I take it, to prevent a second London growing up. Therefore, they suggest greater space for air and ventilation. But the tendency now in the suburbs is to assimilate themselves to London, and, therefore, to extend the over-crowding of London. With regard to the plan at the further end, a criticism I should like to make is this. The end of the back spaces abut upon the principal streets. Very good, no doubt, for ventilation; but with second or third class houses, the result would be what I have seen so often: a splendid vista of washed linen and things of that sort. Any time you passed this opening on the principal street, you would see those domestic arrangements which are familiar to us all. I quite agree with Mr. Street in his observations as to the separation of classes. I think it is a very great mistake to build all the houses of the rich in one place, and all the houses of the poor in another. It tends to accentuate class distinctions to a greater extent than even now exist. (Applause.)

Mr. ARTHUR BAKER [*F.*].—Sir, there is a question in Mr. Street's very interesting Paper which I should like to lay stress upon; it has interested me for a long time. It is with regard to the width of streets and the heights of houses. It is a great pity that a hard and fast rule should be laid down in the Building Act, and that that should be continued in the proposed Act. I think it would be much better if the rule were more elastic. As Mr. Woodward has said, the proper height of a house depends upon the width of the street. As regards the height of houses built up to the frontage line of the street, the rule that it should not exceed the width of the street is good as far as it goes. The building of all houses up to the limit prescribed in this rule tends to great monotony. In the East End of London the thoroughfares are far grander and more picturesque than in the more fashionable parts of London. I know nothing more terribly monotonous and dismal than some of our magnificent thoroughfares. Northumberland Avenue is a most dismal thoroughfare, the houses being all brought up to the front line. I think it would be much better if some rule were made so that the houses would not necessarily all be brought up to the frontage line. By the courtesy of the Executive I have been allowed to put a diagram on the wall. The rule as it stands at present says that the houses should not be built of a greater height than the width of the street. This may be objected to by those who say, "We want to build a more lofty house." Well, I do not see why they should not. If a man wants to build his house higher than that, why should not he be allowed to do it by building his frontage up to say two-thirds of the width of the street, and then let him build the rest of the house back, and carry it up to any height he likes, so long as the eaves of the roof do not rise above a line drawn at an angle of 45° from the base of the frontage wall on the opposite side of the street? A street on that principle, where builders could do what they liked, would present a very picturesque appearance. There might be some cases for instance where a top light might be required for showing off pictures, or other trade purposes. I think, in short, that the rules might be made more elastic, so that certain arrangements such as I have described might be possible.

Mr. H. DAWSON [*F.*].—Mr. President, the benefit of these open spaces—or, I would call them more correctly, unbuilt-upon spaces—to dwellers in the midst of cities or towns is admitted, and the interests of private owners being generally, as we know, too strong to supply them either to an adequate extent, or on any scientific plan, it follows, I think, that such essential adjuncts to a city or town cannot be secured without some general scheme for the healthful occupation of urban lands being settled by Parliamentary enactment and enforced afterwards by some statutory authority. I submit that such a scheme should determine the relative proportion which open spaces must bear to the surrounding land covered, or to be covered, by buildings; and that it should provide that whenever any considerable area of uncovered land, either inside the urban boundary or within a defined distance outside that boundary, is proposed to be occupied by buildings, the said authority shall be entitled after due notice to purchase by treaty or compulsorily the whole or any portion of such land (including all interests therein) for the appropriation thereof for ever to the purposes of public recreation. I would ask whether, in the interests of the public and of the beauty and healthfulness of our cities, the Institute could not at some early date endeavour to initiate or do something to promote the passing of such an Act, for without it I feel sure we shall never accomplish this object. Listening, as I did, to the statistics given by Mr. Woodward as to open spaces in Paris, Vienna, and London, my breath was almost taken away when I heard that the open spaces in Paris were equal to one acre to every thirteen inhabitants. I am almost inclined to ask whether some of those acres are not at Fontainebleau. As to the main thoroughfares in cities and towns, the plan of radial lines really exists now in London, and might form a beautiful city, but not when they are all radiating to one single centre. I think it would be preferable to have several lines of radii, as they are to a great extent in London; and if there were several centres a great measure of beauty and usefulness might be obtained. Then again, as to the lines and intersections of modern thoroughfares, I submit that we shall do better to avoid rectangular lines; the chief beauty of the main thoroughfares in Paris, especially the Boulevards, lies in the curved lines which frequently occur. If we can imagine those Boulevards to be all in rectangular lines, their beauty would be very much lessened. I was very much interested in the remark of Mr. Street as regards the location of space in cities and towns for railway stations. There is no doubt that in many of our large towns, such as Glasgow, considerable injury has been done by the way in which they have introduced some railway stations, and no doubt London has not been improved by those most ungainly structures which we are accustomed to look upon—Charing Cross Station and Canon Street Station; but while I quite agree with him in his suggestion—which I think was that all railways should come up to and around the city, but not go through it—I am afraid the exigencies of business in London will not allow us to arrive at that most desirable goal. I fully agree with Mr. Street in his advocacy of the intermixture of the main with minor thoroughfares of a city; also I think there is no doubt, although it is not our province here to speak much upon social questions, that such intermixture of the larger with smaller dwellings is a benefit not only in the physical, but I think we must all agree in the social, sense. One of the most urgent problems of the day is to endeavour to obtain such an intercommunication of classes as shall be mutually profitable; but I do not think the solution of this will be obtained by departing more than is necessary from the old custom of our forefathers, under which the dwellings of the poor were placed for the most part in close propinquity with those of the rich. Moreover, I submit that this mixture of the smaller with the larger dwellings will better conduce to pleasing and picturesque combinations in our architecture. At the same time it must be, no doubt, admitted that until the value of land in our cities is less than it is—and I am not one of those who look forward to its being less; I think it will be more likely to be more—I do not see how we are to obtain to any very large extent the propinquity of the dwellings of the poorer classes with those of the rich. As to air-spaces round buildings, I have always regretted that the Act of Parliament provides so small a space as it does—a minimum of ten feet behind every house. My own notion is that the rears of houses should be just as open practically as the fronts of houses, and whereas we know that no buildings are now allowed to be erected on a street less than forty feet wide, my conviction has long been that there should be at least that same width between houses at the rear—that is to say, above the ground storey. In fact, I should like to see a rule that in any case it should not be less than ten feet where a house does not exceed twenty feet high, and that in all other cases the space should be in width at least half the height of the main rear wall. As to the heights of buildings in proportion to their widths, it is all very well to say that if a man desires to build, he should set back the upper storeys of his building. But very often he has not got the land at the rear, he has only a certain depth, and therefore he must make the best of what he has got. But I do sincerely think that our cities would be more healthy if there were a method of limiting the height of buildings so as not to exceed the width of the street, and then that above that height they should be set back gradually, storey by storey. I would strongly recommend this setting back, which I have before advocated in this room, in reference to the important matter of protecting ancient lights. If a man, instead of carrying up his new building to the height of, say, 20 feet above what it was before, were to build the façade approximately up to the old height, and then set back, it is quite clear that it would be a distinct advantage to the health of the community, and contribute greatly to the picturesqueness of our cities

and towns, and at the same time would not ultimately lessen the value of the property of the building owner.

Mr. McLACHLAN [*A.*].—Sir, after a Paper read in this room many years ago, one speaker considered that the best theoretical idea of planning a city was that of the spider's web. That, of course, gets nearer to the radial system than the plan which we have before us. If you study the natural system, you will have as the best point for your open space that point where the largest amount of fresh air is to be had—that is, the highest point—such as we have at Hampstead and Hackney Downs, and then the fresh air would flow far better from those parts on to the town. Theoretical planning on paper is most ill-advised, and I believe in America it is by no means an uncommon thing for surveyors to set out the lines of a plan without having ever seen the site. As to open spaces, they are most advisable, and are greatly wanted, but at the present time I think there is a mistaken notion about them. The theory is that wherever there is an open space you should keep it. That I am really very much against. I think that in some places—never mind what the expense—you ought to be ready to buy up large tracts of land to make open spaces, where otherwise it is impossible to get them. But, on the other hand, if you find that there is an abundance of open spaces in a certain district, I certainly do not see any reason for making the whole of those open spaces public. At the present time with regard to the East End of London, nearly the whole of the open spaces are to be found in the parish of Hackney. Then as to the width of streets. The regulation by-law, that the minimum width of a street should be forty feet, is a most unfortunate regulation. The result has been that nearly everybody, in plotting out his land, has attempted to keep to the minimum, and it is only in cases where the Metropolitan Board of Works, and the County Council, or some landlords have had wiser ideas, that we have had streets beyond that width. In several German cities it is thought that streets should be regulated according to classes, with widths varying from 45 feet to 120 feet. Then as to the heights of the houses following on the widths of the streets, the necessity for the easier escape of the inmates, in case of fire, is a very important reason for keeping down the height. As to separation of classes, I perfectly agree with Mr. Street and Mr. Angell; but the latter must remember that it is largely owing to the ground landlords that we have this separation of classes. A large number of the rich dwell together in certain districts, and the municipal corporations are forced to accentuate that in other districts where the artisans are placed together also. As to the line of frontage, I also think the suggestion of Mr. Street is not very feasible, that there should be a limit to the line of frontage, and that they should set back architectural features. That would have the same unfortunate result as the minimum width of street. Nearly everybody would build up exactly to their line of frontage, and the architectural effect would be lost. It is better to have—as in certain building regulations in German cities—provisions made for projections beyond the line of frontage, proportionately, though roughly, to the area of the frontage and the height of the buildings. If that were done in a new Building Act, I believe it would give considerably less trouble to the London County Council and the district surveyors in general. I heartily propose a vote of thanks to Mr. Street. But, before concluding, I would wish to say that the railways which now come into cities cause the destruction of certain quarters. That part of London between Battersea and Clapham Junction, and all the neighbourhood around Somers Town, have been destroyed by the railways.

Mr. P. GORDON SMITH [*F.*].—Mr. President, I find that this question of the development of towns resolves itself into three distinct divisions—first, the consideration of traffic and intercommunication of parts of the town; secondly, the provision of ample air and recreative space; and thirdly, the architectural adornment of the town—not merely of the streets, but of the town. Mr. Lewis Angell has paid a tribute to the good work which has been done by the large landowners of London. I was prepared to say something on that point myself. The Penton estate has not been mentioned, but it has some excellent open spaces. I think advantage could often be taken of improving places as opportunity offers, and it seems to me—I say it with all deference to Mr. Lewis Angell, because he is connected with a very large district in the immediate vicinity of London—that as the local authorities know before any one else, except the actual seller of the land, when there is any land coming into the market, they might, by a little judicious persuasion, be the means of securing for the benefit of the public vast improvements upon what is proposed by the speculating builders. I do not doubt that in many instances the officers of local authorities succeed in obtaining improved arrangements and increased width for proposed streets. Mr. Woodward mentioned the relative proportion of open recreative spaces in some of the cities of Europe. He mentioned Paris as having one acre available for every thirteen of the population. I happen to have in my hand some figures collected by a Mr. Gould, which appeared in the publications of the American Statistical Association. Mr. Gould there states that in London there is one acre of recreative ground—parks and such like—for every 694 people; in Paris he gives it as 495 people for every acre; in Berlin 804; in Edinburgh 246; in Vienna 2,230 people to every acre of that open space. In New York it is 999, and in Washington it is 361 people to every acre. I cannot help thinking that those figures are more approximately correct than those of Mr. Woodward. Something has been said about blocks of artisans' dwellings—and there again I think there is, generally speaking, an undue crowding of people. I have looked over the evidence that was given before the Royal Commission on the

Housing of the Working Classes some few years ago, and I was astonished to find one very eminent philanthropic gentleman, who is largely connected with these artisans' buildings, giving it as his opinion that it was not at all out of the way to concentrate as many as a thousand people to the acre in that class of dwelling. For my part I feel confident that it is a mistake, and we shall by-and-by regret erecting these gigantic buildings in such huge unbroken blocks as they are—(Hear, hear)—and I hope that whatever is done in connection with that class of building will be towards breaking them up into small groups so as to admit sunshine, and allow the air to circulate freely about them.

MR. EDWARD BOND.—Sir, I assume that I was asked here to-night in the capacity of one who has for a long time taken an interest in the providing of dwellings for the labouring classes, and who is at the present moment chairman of one of the companies which undertake that task. I should like, however, before I touch upon that subject of workmen's dwellings, to express my opinion that Mr. Woodward was mistaken in the figures which he laid before us with regard to the quantity of open space in London, as compared with the quantity of open space in other cities—for instance, Paris and Vienna. I have always noticed that in discussions on these subjects there is an immense uncertainty as to the meaning of the term "open space" when used by statisticians. It ought, I think, to mean a space available for the public; but it is sometimes taken to mean, besides spaces available for the public—such as our parks and public gardens and those churchyards which Lord Meath's Society has been instrumental in opening to the public—spaces like Belgrave Square, Lincoln's Inn Fields, or Bloomsbury Square. If you take those into account, of course that would increase the proportion of open spaces in London, as compared with other cities, most of which are altogether without that kind of open space. But then, again, there is another kind of open space, and that is the amount of actual space in the town not built upon. But I take it Mr. Woodward, when he was addressing us, meant to imply that there was less open space available for the general public in London than there was in Paris or Vienna. Now, I think that must be a mistake. At all events, it is perfectly clear that even if he is approximately correct in the statements he has made, it must be because the Bois de Boulogne in Paris, and the Prater in Vienna, are taken into account in the calculation. But neither is available space in the sense in which Hyde Park is. They are not enclosed by buildings; they are annexed to, but are not part of, the town; they are, in fact, part of the country—the country beginning as you enter the Prater or as you enter the Bois de Boulogne. Now, again, I am at issue with Mr. Street upon some statements which he made with regard to the provision of dwellings for the working classes. It seemed to me, in fact, that Mr. Street was a little self-contradictory in what he said. He said he did not want working-men's dwellings built in the suburbs, because that would tend to still further accentuate the separation of the classes; and he also said, as I understood him, that he did not want large blocks of barracks, or dwellings of that kind, built within the present limits of the town, because he thought that was not the best style of building. But, as we all know, there is a constant immigration of the working classes into London, and these persons who come to swell the population of the great metropolis must somehow be provided for. They must either be provided for on the outskirts, or they must be provided for by building larger dwellings within the existing limits of the town. Now, only those who have paid attention to the question, and who have gone up and down London from end to end (and, to some extent, I claim to have done that), will realise how much London is a city of cottages. I think I am speaking well within the mark when I say that at least two-thirds of the population of London live in dwellings which are not more than one storey above the ground floor. It seems astonishing, of course, to people who pass their lives in the West End and in the crowded thoroughfares of the City, but I think, if you take into account the vast area of one-storey buildings which you find in the East End and in South London, and all that dreary region by Somers Town and Camden Town, and many other districts familiar to different persons in this room, I feel convinced I am within the mark when I say that that is the state of the case. This state of things results, no doubt, from London being an aggregation of villages. Village after village, which was a pleasant country suburb 100 or 200 years ago, has been gradually added to the town, and the lines of communication which have been built up, connecting that village with the original city, have been built on the village plan for the most part. On the great lines of communication you will, it is true, find rather larger houses; but in the back streets which branch off from those you will still find the old cottage type preserved. I do not myself think that that plan of building is very well adapted for a great town like this. It seems to me that, in some respects, what we want in London is not greater diffusion, but greater concentration; and one way of obtaining that greater concentration is to build, I will not say barrack-like buildings, I will not say monotonous buildings, but erections in which a considerable number of people can be housed, provided, at the same time, that you secure an ample space at the back, as under the new Building Act you will be obliged to provide an ample space in front, in order that there may be plenty of sunshine, such as you can get in London, and plenty of fresh air coming into the dwelling. If you adopt the plan of thrusting London further and further out into the country, it becomes more and more difficult for any man living in London to get out into the country at all; and again, the more you increase the space between one part of London and another, the more you render it difficult to get from one part of London to the other, the more you intensify the separation of classes which has been deplored, and the more difficult

you make it for people to go about their business conveniently and comfortably. A great number of people have to live near their work, and there is no very great advantage gained by compelling or encouraging the people to go and live out in distant suburbs. They will do it fast enough—those of them who like it, and there is ample provision being made. But what I deprecate is the generation of a kind of sentiment which should on the one hand impel the County Council, we will say, to the promulgation of a scheme for housing the people in these outside villages, and, on the other, should produce a feeling on the part of the public that it is an uncomfortable and deplorable thing, that a larger number of persons should be housed within the metropolis than under the present system is actually the case.

Mr. THOMAS BLASHILL [*F.*].—Sir, I have listened with very great pleasure to the Paper, and I need feel no delicacy in making one or two harmless comments. Young naturalists often imagine that the oyster is made to fit the shell, not having learnt the simple truth that the shell is modelled upon the oyster. A town should be built to suit the inhabitants, who should not have to suit themselves to the convenience of theorists who plan ideal towns. In America, I believe, towns are often built upon systems of squares or triangles. I have not heard that they are very much better than our own. The plan of London by Sir Christopher Wren has very often been praised, but it appears to have been so entirely out of possibility that it is not of much use to discuss it. If you could buy a tract of country and lay out a town upon it, you could not ensure that it would "catch on." Populations are very capricious; they will settle themselves where they like, do what you will. The practical point really is, to see that where large numbers of people congregate together each house should be built in a satisfactorily healthy manner. Of course there are questions with regard to streets. Streets are made partly as thoroughfares and partly as frontages to houses. We have a good many regulations with regard to these which are not perhaps so useful or so stringent as they might be; but the public are exceedingly impatient with restrictions. Some of our colleagues are very liberal in their notions of what ought to be given up by private owners to the public; but when they appear in Court, or in other places where I am myself visible, and when the question is as to what their client should be allowed to do upon a particular plot, they are entirely different in their tone. (Laughter.) There must be some humour in life to make it tolerable to men like myself, and I must say I enjoy this kind of thing immensely. But is it not common sense to let people exercise their own free will, using restrictions only as far as may be necessary for the good of the individual and of the public? I am disposed to think that those regulations which we have for open spaces and general arrangements with regard to new buildings must sooner or later be applied to old buildings; for, if they are necessary for the new, they must often be even more necessary for the old. No doubt it would be cruel, and might even be ruinous, to make all owners, without notice, bring their old buildings into line with new ideas; but that must happen in the course of events. With regard to planning, there is a very great difficulty, arising out of the ownership of particular plots of land by different owners. Take a main road. You will find that each plot of a hundred yards or two in frontage is the property of a separate individual, and each separate individual wants to run a street down his plot so as to form a *cul de sac*. We checkmate that by Act of Parliament to a certain extent, and if private owners would combine together they might often make much better plans than we have now; but even private ownership becomes ten times worse than it might be owing to the multitude of interests which are connected with each particular plot. We are not getting the streets we ought to get; we are not getting even that approximation to the ideal plan which we might tolerate or even desire. With regard to back yards, there is a growing idea that we ought to have similar regulations to those we have with regard to streets, adopting some angle within which all buildings should be restricted. Then with regard to the height of houses, the County Council three years ago tried to get the height reduced to, I think, 70 feet, or about the height fixed in Paris and the greater European cities; but a large number of our friends would not have it; so they went to Parliament, and represented strongly the mischief that would arise, and now the height is 90 feet and two storeys above that, and this is now felt to be excessive. Then as to the housing of the poor, I know no means of housing people, to any large extent, upon land of which they cannot pay the rent. You may wish it to be so if you like; but if you wish the poor and the rich to continue to live together, let us remember that the rich are going out of town, and therefore if you keep the poor in town you are not doing that which you wish to do. They should, as a rule, go out also, like the rest of us, so as to let the central parts of the town be used for business. With regard to public open spaces, the public authorities should, I think, see beforehand where a town is likely to develop itself, and lay hold of all open spaces by purchasing them—or by begging them. I beg leave to second the vote of thanks to Mr. Street.

Mr. WILLIAM C. STREET [*F.*].—Sir, I brought a plan before you, never for one moment suggesting that any such city could possibly be built upon that plan. I brought it as the suggestion of a type which would, of course, have to be altered according to the levels of the ground and other things. However, it has served its purpose; it has called forth a discussion. I agree generally with the sentiments expressed, and acknowledge with pleasure the vote of thanks.

*** In the course of the Discussion Mr. Woodward offered an explanation of his statement as to the proportion of area to population in Paris; but want of space has prevented its insertion in this issue of the Journal.

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THE MASSACHUSETTS CURRICULUM. The Volume of this Journal published in 1887 contained a series of notices of various architectural curricula in the United States of America *—among others the Course at the Massachusetts Institute of Technology which was founded at Boston in 1865. It was about that time that Professor Ware started for Europe to study the several methods of education in force among architects in England, France, and Germany; and the reports he took back, with the use he afterwards made of his experience, entitle him to the honour of recognition already accorded to him as the pioneer of architectural education in the United States of America. Of course, in the early years of the establishment of such schools of architecture as those of the Institute of Technology at Boston, the Columbia College at New York, the Cornell University at Ithaca (New York State), and the Illinois Industrial University at Champaign, doubt of and opposition to their success had to be suffered and overcome; and it is therefore agreeable to those who wish to see architects, even the most artistically endowed, possess the education expected of gentlemen, to find Professor Ware stating, in 1887, that there was no difference of opinion in the States "as to the advantage of having schools of "some sort." The architects, even, were unanimous in that opinion. The young men, whom he had had in his classes, both at New York and Boston, formed a distinct body in the profession, united by associations, sentiments, and principles; and, added Professor Ware, "Not the least of the advantages which the establishment of schools "is effecting in this country is that they bring into the profession a superior class of "men, not only better educated, but of better social position." That was written in 1887; and, the year after, Mr. Alex. Graham, who had been visiting America, contributed an article to this Journal [Vol. IV. p. 193] on "Architecture in the United "States," in which he quoted the opinion respecting it of a French critic, to the effect that "however we may cavil at details, we must doff our hats to the result."

Mr. Graham found in the United States sufficient evidence, to use his words, that the day was not far distant when the avenues and streets of New York, Boston, and Chicago would present comparatively "few points of resemblance either to our own "Victoria Streets and Cromwell Roads, or to the long monotonous boulevards of Paris "and Vienna;" and he added that one of the causes which had largely contributed to that hopeful outlook was the establishment of schools of architecture at the principal universities and colleges, where complete courses of professional study were instituted under men of the highest attainments.

* See *The R.I.B.A. Journal*, Vol. III. N.S., pp. 104 and 188 (Professor Babcock's Course at the Cornell University, Ithaca, N.Y.S.); p. 189 (Course at Columbia College, N.Y.); and p. 191 (Course at the Massachusetts Institute of Technology, Boston). A letter from Professor Ware, *Hon. Corr. Member*, on the subject of Education in the United States was also printed at p. 349 of the same volume, which letter, with the curricula referred to, afterwards formed part of the Appendix to a full Report, in pamphlet form, of the Meeting on "Education" held by the General Conference of Architects in May 1887. This pamphlet, which appeared in July of the same year, was printed at the sole cost of Mr. Arthur Cates, *Past Vice-President*, and copies of it may be consulted in the Library.

The first to be established of these courses was that founded and developed under the immediate direction of Professor Ware at Boston. Its prescribed course of architecture in 1887 was one of four years, each year divided into two terms. The slight alterations made in it, since then, are shown side by side in the following columns :—

FIRST YEAR.

1887	1892
First Term	First Term
Algebra	Solid Geometry
Chemistry	Algebra
Chemical Laboratory	General Chemistry
Rhetoric	Chemical Laboratory
English Composition	Rhetoric, and English Composition
French	French (or German)
Mechanical and Free-hand Drawing	Mechanical Drawing
Military Drill	Freehand Drawing
	Military Drill
Second Term	Second Term
Solid Geometry	Plane and Spherical Trigonometry
Plane Trigonometry	Political History since 1815
Chemistry	French (or German)
Chemical Laboratory	Mechanical Drawing, & Descriptive Geometry
Modern History	Freehand Drawing
English Literature	Military Drill
French	
Mechanical Drawing	
Military Drill	

SECOND YEAR.

First Term	First Term
Materials	Shades and Shadows
Greek and Roman Architectural History	Freehand Drawing
The Orders	The Orders
Analytic Geometry	Analytic Geometry
Physics	Physics
Descriptive Geometry	German
Modern History	English Literature
German	American History
Second Term	Second Term
Original Design	Design
Common Constructions	Materials
Mediæval and Modern Architectural History	Freehand Drawing
Shades, Shadows, and Perspective Drawing	Pen and Ink
	Architectural History
	Perspective
Differential Calculus	Differential Calculus
Physics	Physics
Modern History	English Literature and Composition
German	German

THIRD YEAR.

First Term	First Term
Original Design	Architectural History
Sketching, and Water Colour	Freehand Drawing
Lectures on Fine Art	Pen and Ink
	Design
Working Drawings, and Framing	Specifications & Working Drawings
Integral Calculus	Integral Calculus
General Statics	General Statics
Structural Geology	Structural Geology
Physics	Physics: Heat
Lectures, and Laboratory Work	German
German	Business Law
Second Term	Second Term
Original Design	Freehand Drawing
Sketching, and Water Colour	Pen and Ink
Surveying	Specifications & Working Drawings
Iron Construction	Design
Kinematics & Dynamics	Water Colour
Strength of Materials	Kinematics & Dynamics
Stereotomy	Strength of Materials
Political Economy	Stereotomy
German	German
Acoustics	Business Law
	Political Economy and Industrial History

FOURTH YEAR.

First Term	First Term
Original Design	Design
History of Ornament	History of Ornament
Sketching, and Water Colour	Water Colour
	History of Construction
Construction Problems	Strength of Materials
Specifications	Ventilation and Heating
Strength of Materials	Advanced French
Lectures on Fine Art	History: Renaissance
Ventilation and Heating	Acoustics
Language	Graphical Statics
Second Term	Second Term
Original Design	Design
Sketching, and Water Colour	History of Ornament
	Water Colour
Planning	Advanced French
Schools, Theatres, and Churches	Sanitary Science and the Public Health
Problems in Construction	Modelling
	Iron Construction and Graphical Statics
Specifications and Contracts	History: Renaissance
Constitutional History	Business Relations, Contracts, &c.
Advanced French	History of Painting and Sculpture
Thesis Work	Thesis Work

Although the modifications made during five years are, as I have said, slight, they are not unimportant. The " Lectures on Fine Art," " Surveying " (which no doubt

meant land-surveying), "Planning" (now included under Design), and "Schools, "Theatres, and Churches" (also included under Design) have been omitted from the course; while "Sanitary Science and the Public Health" and "Modelling" have been introduced. Not the least remarkable thing connected with this course of study, both in 1887 and 1892, is the fact that history of some kind pervades each and every term of its four years; and that, at the present moment, "Political History," "History of "Construction," "History of Painting and Sculpture" are taught over and above the several items of history taught in 1887. Great importance also seems to be attached to the necessity of acquiring an efficient knowledge of French and German, which is most reasonable, seeing how absolutely essential to an architect is the power of reading the two great Continental languages in which some of the best and most thorough books on architecture are written. In a description of the entire Course, recently forwarded to the Institute, and of which a copy is now in the Library, it is stated that "there have been introduced studies in literature, language, politics, and history, "directed towards the student's mental development. The most important elements "in this general training are German and French, General Chemistry, English Litera- "ture and Composition, American History, Political Economy and Industrial History, "Business Law, History and Literature of the Renaissance, and the Reformation." Yet it is asserted by the same authority that the Course is designed to secure for its graduates not alone a liberal education but also thorough professional training. The proportion of time to be employed in non-professional studies is made to steadily diminish during the successive years of the Course; and the Faculty say that in providing a large proportion of strictly artistic training—and the word "artistic" is used by them here in its old English sense—they have been guided by the consideration that students in their future professional career are "likely to need, in about "equal proportions, scientific knowledge in the conduct of construction, and skill in "arrangement and design." As regards education in Design, this is what the Faculty are bold enough to state:—

> The instruction in Design is arranged as carefully as possible to occupy to best advantage the allotted time. Every month two problems are assigned to each class: one, a sketch problem, which must be worked out, effectively rendered, and finished within one week; the other, a more difficult problem, for the detailed working out of which the entire month is allowed. To accustom the students to concentrate their minds upon the development of a single idea, instead of wasting their energy in the successive adoption and abandonment of different solutions of the given problem, two days are allowed, after the posting of the programme of the month, within which each student must fix upon some general scheme for his design, and show it in plan and elevation on a small scale. These preliminary sketches are attached to the completed designs. Judgment is passed upon the drawings by a jury from the Boston Society of Architects. These designs are afterwards criticised in the presence of the students of the department, and the most deserving are indicated by cards of honourable mention. The others are marked by the instructors according to their merits, and regular reports are made to the parents of the students.
>
> Studies in planning give the student opportunity to enlarge his resources in work of this character; and particular attention is paid to special classes of buildings, such as schools, theatres, churches, and hospitals. The careful study required for the final thesis serves to fix some good example in the memory.
>
> The long drill in Design would be somewhat barren if means were not taken to supply ample stores of fresh material and to educate the taste. For this purpose the library of the department is freely used. As soon as a programme for design is posted, the instructors refer the students to books, photographs, and drawings from which examples of the solution of similar problems, or suggestions as to treatment, detail, or decoration, may be obtained; and an effort is made to collate as many examples as possible, in order to increase the student's resources, and to promote originality in adapting historical examples to modern requirements.

The exercises begin at nine in the morning and terminate before five in the afternoon. The tuition fee for regular students is $200 for the school year, and the cost of books, drawing instruments, paper, &c., is from twenty-five to forty dollars a year. The cost of board and lodging in Boston and the neighbouring towns is estimated at about six to eight dollars a week. Thus an idea of the cost of the four years' course may

be obtained. As at the Massachusetts Institute of Technology, the "Department of "Architecture" had entirely outgrown its previous quarters, a new building to be entirely devoted to it has been recently erected. It measures 65 feet by 58 feet, and has a basement and five storeys. One half of the basement is a museum for building appliances; the other half is a laboratory for the testing of cements, mortars, &c., and has also a complete plant for experimenting on the siphonage of plumbing traps. This system is arranged to be in exact accordance with the plumbing practice in private houses, in order that the experiments may be thoroughly practical and useful. The first floor is devoted to lecture rooms. The second and fourth floors are large drawing rooms, lighted from both sides. One half of the third floor is a drawing room, and the other half is the library. The library is very fully equipped and catalogued, and has every convenience for ready consultation of its eight hundred volumes and ten thousand photographs. The fifth and upper storey constitutes one large drawing room, arranged for the classes in freehand drawing from the cast and from life, and for the classes in water colour and modelling. The lighting of this room has had the most careful study, and its arrangement of skylights and sidelights is unsurpassed. The heating and ventilating apparatus of the building is so planned that the rooms are kept at a constant regular temperature by means of electrical appliances, and the air is constantly changed without the necessity of an open window. The new building is opposite the Boston Museum of Fine Arts, in which the advanced courses of freehand drawing are held, and is also near the new Public Library. Both of these institutions offer the free use of their collections to the students of the Institute of Technology.

I have taken the foregoing description of the new building word for word from the pamphlet previously mentioned; and rejoice at results so encouraging as those to which its erection bears witness. Happy Bostonians! Having but a short past as far as their own country goes to look back on, they prepare for the great future that awaits them. Throughout the United States of America the architect is doing his best to repel the raids of engineers pure and simple; and there at least, in the twentieth century, he may yet escape absorption, under the guise of a special provision, in the meshes of General Contract.—William H. White.

BRICKS AND BRICKWORK.*

There are few more fascinating subjects of inquiry and speculation combined than the attempt to reconstruct for ourselves the daily life and habits of long-forgotten generations of men. Any such attempt will soon convince us that our present civilisation is the direct outcome from conditions of things which were as unlike as possible those with which we are familiar nowadays. Just as Darwin and Huxley have proved that evolution has been at work in the animal world, modifying, —by very gradual and, at the time, imperceptible steps,—the frame and physical organs of living beings, or, as Mr. Herbert Spencer has pictured for us, the slow growth and development of our social relations, so I believe a careful investigation would show that our dress, our dwellings, and particularly the architectural forms and features of our buildings, whether private or public, can all be traced back to simple elementary types. The history of the development of the human dwelling, if worked out thoroughly in a scientific spirit, would not only be a subject of the deepest interest to all who have to do with modern buildings, but would clear up many of the knotty points upon which archæologists have never been able to agree, and I venture to hazard the suggestion that such an inquiry would go far to prove that the origin of the ecclesiastical architecture of all times and countries is far humbler than many persons would have us believe. However rude and savage might be the earliest inhabitants of any country, they would soon endeavour by some means to obtain shelter from the elements, and a secure retreat in case of attack from the wild animals and more dreaded men by whom they were surrounded; and the means which they would adopt for this purpose would depend upon the physiography of the district in which they happened for the time to be located. It would frequently happen that, if living on a rocky sea-coast or by some swiftly-flowing river that had worn away portions of the adjoining hill-sides, they would find numerous caves and hollows the possession of which they would have to dispute with some wild animals, but which would provide the necessary shelter; and it is perfectly certain that primæval men would make use of such

* A Paper by Mr. John Slater, B.A.Lond., read on the 5th inst., before the Liverpool Architectural Society—Mr. Alfred Culshaw, Vice-President, in the chair. The Paper was illustrated by some admirably executed diagrams, specially prepared by the author.

cave-dwellings, ready made to their hand by nature, rather than take the trouble of erecting dwellings for themselves. Every one knows that many of the most interesting relics of prehistoric man have been found in such caverns in all parts of the world. But these early progenitors of ours would have to live, and, as they increased in numbers, they would range over an ever-widening extent of country in order to obtain sustenance, and would gradually begin to make temporary settlements wherever good hunting was to be had. If no caves were to hand they would make use of the most easily manipulated material, namely, the branches and trunks of trees, which, with but slight trouble, could be formed into rude huts and covered with leafy boughs as a roof. In process of time these nomad tribes would cease to live by hunting only, and would begin to practise the elements of agriculture, settle down for a longer period than usual, and form some sort of community, and they would soon turn their attention to the construction of buildings more durable than the shanties which were sufficient for a few days' occupation only. The first rudiments of building were undoubtedly the cutting down and piecing together thicker and more substantial pieces of timber, and, as men grew more expert in the use of their rude implements, simple patterns would be cut in the timber, the repetition of which would form a band of ornament, and we should have the commencement of a timber style of architecture. In some countries, such as Japan, and to a large extent in China, a timber architecture survived with the growth of civilisation, and most picturesque results were obtained from the elaborate carvings and decorations with which these buildings were enriched. But, as a rule, when men began to advance in intelligence and manual skill, and the use of metals was discovered, they could not fail to contrast the ephemeral and destructible character of their timber dwellings with the hard, dense, and apparently imperishable nature of the rocks and stones which formed the everlasting hills which they saw around them. And you must remember that, although no means of quarrying then existed, Nature herself is the most efficient quarryman. Water and frost, heat and cold, will in the course of ages break up into manageable sizes the hardest rocks, and I do not think there can be a doubt that the earliest stone buildings were formed of rough pieces of rock picked up haphazard and roughly fitted together, the interstices being filled up with some softer materials, such as clay, earth, or sand. Any one who has examined the remains of the early British villages which exist in many parts of Cornwall, or the very interesting chapel of St. Piran in that county, which dates from the seventh century, cannot fail to be struck by the fact that, as far as the walls are concerned, the stones had no work on them at all, and were simply brought to the spot just as they were found on the hillside, and placed in position as they happened to fit. The probability is that the first enterprising tribesman who built himself a stone dwelling would run the risk of having it pulled down about his ears by his neighbours for his presumption, but gradually his example would be followed, and we should have the rudiments of a stone architecture. You have probably been wondering what on earth all this has to do with bricks and brickwork, but you will see that I am gradually getting a little nearer my subject.

I have endeavoured to sketch out what would happen to the early inhabitants of a stone country, but in many places, as the population increased, communities would settle down in districts where no stone existed and where the soil was chiefly of clay. Here the enterprising builder would find no hard material ready for his use, but he would notice how in summer this clay became exceedingly hard when the sun beat down on it, and the ingenious man would one day be struck with the idea that if he could dig up lumps of clay when it was soft, of a size that could easily be carried, and let the sun harden them, he would be able to transport them where he liked and use them to make a house with; and in this you have the first beginning of a brick architecture.

The use of unburnt, sun-dried bricks dates back to a hoary antiquity; they were made and used for all kinds of building in Egypt, Greece, where the palace of Crœsus and that of King Mausōlus were thus constructed, Assyria and Persia, and in hot, sunny countries they are still used to-day. Chopped straw was mixed with the clay in order to give it a consistency, and where very little rain fell these bricks answered fairly well. In fact, they formed the principal material with which the enormous and elaborate Ninevite and Babylonish palaces were constructed. If not very carefully tempered, these sun-dried bricks soon become very friable; and it is owing to this fact that of the majority of those wonderful cities of the East which we read of in history nothing now remains but a heap of earth and rubbish. But it is also to the fact that the rubbish appeared absolutely valueless that we owe some of the most interesting discoveries of recent years. Wherever any old stone buildings existed that became ruinous or deserted, the neighbouring inhabitants invariably used them as a quarry and carried away the stone for their own use; but in Assyria no one ever thought it worth while to cart away crumbling clay and earth. Some few years ago a Frenchman named Botta obtained the requisite permission to excavate one of these huge mounds in the Desert, with only a few straggling huts around it. His explorations were continued by M. Victor Place, and the result was most unexpected, and showed that many of our architectural forms and features have a much greater antiquity than any one imagined. One can easily understand that in a clay district it would soon become apparent that artificial heat, such as might be obtained from a cooking place, hardened the clay and altered its colour, but few can have imagined the use that was made of the knowledge of this property in the clay for the production of decorative effects.

These excavations took place about twelve

kilomètres from the Tigris, at a little village the modern name of which is Khorsabad, which is on the site of the great palace built by King Sargon. Buried under the débris of centuries was found a walled city with fine gateways, the palace itself with a magnificent arched gateway of brick, the voussoirs being carefully moulded to the proper shape and enamelled in various tints, forming a beautiful pattern, and as vivid as if they were lately taken from the kiln. Artificially burnt bricks used for paving, and so hard that when struck they rang like a bell, the discoverers using them as paving for the floor of their temporary stables; arched covers for sewers formed of radiating bricks accurately moulded; and glazed wall-tiles in profusion, were discovered. The sizes of the bricks varied considerably, the paving bricks being about 15½ inches square and 2¼ inches thick, and these were carefully laid in two courses, breaking joint; their colour was a dull red, approaching brown. The arch bricks in the conduits or sewers were curiously formed, every alternate course having a keystone of peculiar shape, and M. Place's belief is that the intervals were keyed with ordinary unbaked bricks, thus affording, in case of repairs being required, an easy means of entering the sewer. The height of the walls of the palace was about 15 mètres or 49 feet, and their thickness 5 mètres, while the height of the encircling wall of the city itself was about 23 mètres, and the thickness nearly 8 mètres. The gateways both of the city and the palace were of such a kind as one would never have expected, being true arched openings about 14 feet in width and 21 feet high, the arches being formed of four rows of bricks very carefully laid, with radiating joints. It is a most extraordinary thing to find these old Assyrian builders planning and executing so fine a work as this. There is one peculiarity about these glazed bricks: although their colour was perfect and the bricks themselves uninjured, they were comparatively soft, and the part built into the wall could be dented by the mere pressure of the hand.

Although, as I have stated, bricks were used in Greece, yet the abundance of excellent marble in that country prevented builders having recourse to an artificial material. In Rome, however, and her colonies brick was extensively used, although recent investigations have shown that many of the old Roman buildings which were supposed to be erected of solid brick are really only brick faced, and that the interior of the walls is concrete of the most admirable kind. Apart from this, however, there can be no doubt the Romans were excellent brickmakers, as is evidenced by the present condition of many buildings which were erected in various parts of Europe and this country during the Roman occupation. Take the Basilica at Trèves, for instance, nearly the whole of one side of which is the original brickwork, as well as the lofty arch between the apse and the main body of the building, and if you examine it carefully you will see that there was no scamping in that work. The excellence of Roman bricks is further shown by the fact that in many parts of this country what are undoubtedly Roman bricks that have been taken from some vanished building and reused in other places are still found in an unimpaired condition of strength. After the close of the Roman dominion, brickmaking as well as nearly all other arts and sciences fell into decay, and it is a curious fact that, whether in the British Isles or on the Continent, we have very few remains of any brickwork that is not Roman until about the thirteenth century. Saint-Sernin, at Toulouse, a church of the twelfth century, is partially built of brick; but the convent of the Jacobins at Toulouse, dating from the end of the thirteenth century, is one of the finest examples of brick building in the middle ages. As Viollet-Le-Duc points out, it is in this part of France that good building stone is entirely wanting, and consequently the architects of the time were compelled to elaborate a style of their own in the only available material, brick. In the thirteenth, fourteenth, and fifteenth centuries French bricks were of larger size, about $13'' \times 9\frac{3}{4}'' \times 2\frac{1}{4}''$, and the mortar joints were frequently within a fraction of an inch as thick as the bricks themselves. Moulded bricks are but rarely met with, but cut brickwork of very interesting character is found much oftener. It is clear to my mind that Viollet-Le-Duc, with all his wide knowledge and versatility, held brick architecture in somewhat low estimation, for two pages in his *Dictionnaire* dispose of the subject.

In Germany you will find brick largely used in those districts where stone is poor and scarce, but the general mode of treatment in that country is somewhat heavy and uninteresting. There are, however, many fine examples. The Marien-Kirche at Lübeck, dating from the end of the thirteenth century, is one of the best specimens of German brick architecture, and this church had a great influence on the style of the surrounding parts of the country. At Brandenburg on the Havel is the fine church of St. Catherine, late fourteenth century, which has one of the most elaborately ornamented exteriors of any brick edifice, and at Prenzlau, Thorn, Seehausen, and other places in North Germany are interesting examples. I have noticed one peculiarity in modern brick buildings in Germany, which is this—the joints are left raked out for a depth of about half an inch from the face of the work as if for pointing, but no pointing is inserted. In appearance the effect is not bad, but I should think it must increase the tendency of wet to soak through the walls.

In Spain brick was used extensively and effectively in the middle ages, though in a manner quite distinct from that which prevailed in other parts of Europe. Mr. Street has little doubt that by far the larger part of the brickwork in Spain was done by Moorish workmen who retained their old constructive traditions. The special peculiarity of Spanish brickwork seems to be that it was rarely moulded, and that effect was obtained by simple projections, as at Zaragoza, where patterns are formed by setting forward the bricks forming the outlines from one and a half to two inches beyond the general face of the wall, and filling up the spaces with a diaper of small tiles.

All the Spanish bricks are narrow—a little over one and a half inch thick—and the mortar-joints are half an inch thick. The Torre Nueva, in the same city, used to be one of the very finest specimens of brick architecture, octagonal on plan, and the faces covered with diapers; but, unfortunately, this most interesting relic of the middle ages has very recently been taken down because of its leaning so much out of the perpendicular. At Toledo the churches of San Roman and Santa Magdalena are excellent examples of the simple and proper use of brickwork. Street says of Santa Magdalena: "The bricks are used very "roughly and picturesquely, with a very thick "mortar-joint, and the consequence is that every "part of this work has a value in texture and "light and shade undreamt of by those who have "never seen anything but our own smooth, smart, "and spiritless modern brick walls, built with "bad bricks and no mortar." And he goes on to say, in a note: "I am aware that in saying this "I blame myself as much as any one else."

The Netherlands are rich in brick buildings, and I know nothing much more interesting than a ramble through the narrow streets of some old Flemish city, where each house seems to try and outdo its neighbour in the quaintness and originality of its steep brick gables. Picturesque, however, as these are, they always strike me as somewhat wanting in grace and refinement. They are the honest and often successful efforts to escape from monotony of a somewhat rough and uncouth race, whose exuberant genius was unrestrained by any knowledge of or love for proportion, such as is shown in classic architecture. The general effect is quite charming, and we, who are accustomed, in the majority of our English cities, to the horrible monotony of a straight skyline formed by a parapet which completely conceals the roofs, can readily forgive the quaint fancy which ran riot in these stepped gables; but the detail is often unsatisfactory, and it is not till we visit North and Central Italy, where the Roman genius and classic traditions had lingered longest, and where the strength of the Northern Gothic was restrained and curbed by the Southern love of colour and refinement, that we find the highest development of a brick style in architecture; and an examination of these buildings will, I think, effectively dispel the notion, which some people used to be so fond of holding, that brick is a vulgar and inferior material, unfit for use in a large monumental edifice. Street's volume on *Brick and Marble in North Italy* came nearly forty years ago as a revelation to many, and the swing of the pendulum which, during the last few years, has sent Gothic art out of fashion, and has brought to the fore a style which, with all its merits, appears to me to carry in itself the seeds of its downfall and decline as surely now as at the time of its first inception, in that lack of reserve and striving after the *outré* and the fantastic which speedily swamped what was true and good and beautiful in the Renaissance, and led to all the monstrosities of the Rococo,—this late rebound, I say, may very probably have prevented the student of the present day from giving that attention to the Gothic architecture of North Italy which it well deserves. Personally, I know of no more delightful field of study. The lovely variety of tint of the mingled brick and stonework, the juxtaposition of the circular and pointed arch, and, above all, the charming simplicity with which the most beautiful effects are produced, all combine to make the brick architecture of this district unequalled in attractiveness.

Take Verona, for instance—the city which lives in my recollection as the most picturesque in its surroundings and the most interesting in its buildings of any that I have ever visited—the first thing that strikes the eye here is the noble campanile which rises from the group of buildings at the corner of the Piazza dei Signori to a height of nearly 320 feet, though its lower part is concealed by surrounding buildings. It is built at first in alternate courses of brick and stone, and then wholly of bricks. For more than half its height it is quite plain, entirely without buttresses, and pierced by three or four small openings only; and then there is a belfry stage, above which is an octagonal storey of later date. The belfry windows are contained under a large pointed arch, and are divided into three lights, with coupled marble columns, the voussoirs of the arches being alternately of brick and stone. Verona is absolutely full of objects of interest, but I can only mention a few as illustrating my subject. The cloisters of the church of San Zeno are, to my mind, some of the most beautiful I have seen. The arches are of brick, pointed on two sides of the quadrangle and round on the other two, and on one side is a small projecting arcade; they are without mouldings, and are supported on coupled columns of red marble. The arcading of San Fermo Maggiore may also be mentioned; and strolling along the narrow streets of the city numerous interesting bits of brickwork will be discovered. There is one special characteristic of the treatment of brick and stone in Verona—namely, the introduction of narrow courses of bricks between the arch stones and the plain walling, or between two rings of voussoirs. This serves to accentuate the arch and to keep it distinct from the main body of the wall, and is an effect that might well be imitated in our own buildings. Venice, which of course has a charm all its own, is not very rich in examples of brickwork—or rather, perhaps, I should say that the examples are not of such excellence as in other Italian cities. The church of the Frari is one of the most interesting examples, and there are one or two early campaniles in brick, San Giacomo del Rialto being the best. San Giovanni e Paolo, or Zanipolo as it is called, has an elaborate cornice. It would be both easy and interesting to devote some time to the description of the Italian cities such as Brescia, Mantua, and especially Cremona; but these would almost demand an evening for themselves. There is, however, one Italian city which must not be passed over, as it is built entirely of brick—I mean Bologna. The first view of its heavily-arcaded streets is undoubtedly somewhat depressing, but the student of brickwork will find any number of most

interesting details. The magnificent church of San Petronio is almost entirely of brick both inside and outside, and is most impressive from its grand proportions and the excessive simplicity of all its details. There can be little doubt that this church exercised considerable influence over Street, as is shown in some of the late churches which he built. But it is for its domestic work that I think Bologna most interesting, as it shows us with how little trouble and expense we can increase the architectural effect of our plain brick buildings.

In our own country, after the Roman occupation terminated, very little seems to have been done in brick until the fifteenth century, although there is one building—Little Wenham Hall, in Suffolk—which dates from the end of the thirteenth century. The bricks here are interspersed with stone and flint courses, and the bricks are of widely different shapes and sizes, and when I visited the building a few years ago I came to the conclusion that it is very probable the bricks were not made purposely for the building. In the eastern counties bricks were largely used during the fifteenth and following centuries, one of the finest examples being Layer Marney Hall, Essex, which has been frequently illustrated. Who was the architect of this building is not, I believe, known, but he was certainly a man of considerable ability, and, I am disposed to think, familiar with some of the Italian terra-cotta work, as not only in the main building, but in the outbuildings also, there are several charming little bits of moulded brickwork. Sutton Place, near Guildford, is a beautiful example of brickwork; but here the influence of Italian Renaissance is manifest, and there can be little doubt that Italian workmen were employed on this building. The detail is pure, the ornament refined.

In Queen Anne's reign English brickwork was under the full domination of the Renaissance, and truly wonderful was the result. As far as workmanship goes, it was admirable. Pilasters, cornices, panels, swags, bunches of fruit and baskets, and, in fact, every imaginable detail, were formed of cut bricks, with an ingenuity and at a cost of labour that almost excites one's pity. I quite admit the charm of some of the older and simpler forms of this style that are met with most frequently in old country towns where age has given a mellowness to the work, and where nature has so often added to the picturesqueness by the creepers which have overgrown the exterior; but of the later developments of the original style and of the modern imitations of it, what can we say? I am aware that I am on somewhat delicate ground here, and I feel perfectly that my own opinion is a mere personal matter and worth no more than any other person's; but I can only say that much of the modern brickwork in imitation of the Queen Anne style fills me with horror and detestation. When I see pilasters tacked on to a front which not only have an exaggerated entasis at their sides, but come bellying out in front like the sails of a ship, they remind one of the fable of the frog and the bull, and the bricks seem swollen with conceit at having attained to a form utterly foreign to their nature. And it is this, rather than the ugliness, which I so strongly object to. Brick is a hard material moulded and baked in a kiln, and moulded bricks seem to me perfectly legitimate; but surely the original baked surface is the most fitting to resist the weather; and if you go and rub and cut all the surface off, and then give the material a shape and form utterly foreign to its nature, you are completely reversing the practice of the Mediæval builders, who have left us the most magnificent examples of their skill, and who invariably gave to each material they employed the ornamental treatment which it was best fitted to receive. Much of this modern treatment of brickwork seems to me on all fours with, and just as reprehensible as, the practice which prevailed in the early part of the century in London houses, where we find a small porch carried by what appears to be a solid stone column of the Doric order, but which turns out to be constructed of wood bent to a circular shape and kept there with an infinity of trouble. In each case the material has been tortured, and bears on its face the imprint of its suffering. And this brings me to the concluding portion of what I have to say to you this evening, which relates to the actual materials with which our brickwork is constructed—the bricks and mortar.

I am not going to take up your time with any description of brickmaking, except to point out the danger of using bricks pressed into shape by heavy machinery. My experience is that these pressed bricks, though having a fine smooth face, are very liable to flake and spall off at the angles, and I believe the reason to be that the outer layers of the clay in the brick get more closely compressed than the inner ones, and consequently the brick itself is not homogeneous. Another drawback to machine-made bricks is that machinery has enabled far inferior materials to be employed than was the case when only hand labour was in use, and consequently small pebbles are ground up with the clay and have a tendency to cause the brick to blow. The following are the characteristics of a good brick: 1. It should be regular in shape, so that when built into the wall the pressure over its whole surface shall be equal; 2. It should be tough and not brittle; 3. It should have a clear metallic ring when knocked gently against another brick; 4. It should show a homogeneous surface when broken; and 5. It should absorb only a small quantity of water. This last is a most important matter, and although a brick can be tested for this with great ease, it is too often neglected. All bricks, of course, absorb some water, but the amount should not exceed from 10 to 15 per cent. of the volume of the brick, and those are the best bricks which absorb water slowly, because when built into walls bricks are subjected to intermittent wettings only, and not to continual immersion in water. The same thing applies to stone, but I am aware of no experiments which have been made to test, *not* the total absorption, but the rate of absorption of

water by bricks and stones. There is one little practical matter that must not be overlooked in brick building, and that is, if you have different bricks for facing and for the main body of the wall, care must be taken that the two kinds are not very different in thickness, otherwise the discrepancy will have to be made up in the mortar joints, and you will get inequality of pressure that will certainly result in cracks. The crushing strength of bricks is an important matter, but you must bear in mind that the crushing strength of a brick and of brickwork are two very different things. The figures given for the crushing strength of bricks vary in different text-books. In the third volume of *Building Construction* the crushing strength of a London stock-brick is given at 128 tons. This is certainly a very gross error. In order to get some fresh information on this point, my friend Professor Unwin, of the Technical Institute at South Kensington, was kind enough to test some bricks for me a few days ago, and I witnessed the experiment. A Leicester brick (Ellis, Partridge & Co.) did not even crack until a load of 63 tons was placed on it, and it crushed just under 68 tons, which was equivalent to a load of 245·8 tons per square foot. A hard Coventry brick, which was cut in half before testing, cracked with a load of 29½ tons on the half of it, and crushed just under 32 tons, equivalent to a load of 217·7 tons per square foot. An average specimen of a London stock full size cracked at 24 tons and crushed at 34 tons, equivalent to 125 tons per square foot, and this may be taken as a fair average for this kind of brick. I thought it would be interesting for you to see how a good material, whether brick or stone, crushes, and I have therefore brought the remains of one or two of the bricks. A bad material breaks up on all sides, a good one takes a pyramidal wedge-shaped form on top and sides, as you see. The hardest brick Professor Unwin has tested was a blue Staffordshire, which only cracked under a load of 107 tons, which is equal to a load of 385 tons per square foot. A 14-inch wall carried 68 feet high, which is, of course, higher than would be safe, would exercise a pressure on the lowest courses of about 3½ tons per square foot—so that, you see, there is very little danger of the bricks themselves crushing; but the interposition of the mortar-joints in brickwork makes a vast difference, and you ought not to calculate as a safe load on brick piers more than about 3 tons per square foot in mortar and 5 tons in cement, and this is approximately about one-tenth of the crushing weight.

JOHN SLATER.

The A.A. Curriculum.— Since *The R.I.B.A. Kalendar*, 1892–93, was printed, the following appointments have been made to Lectureships at the Architectural Association, viz.:—Division III. Colour Decoration, Mr. J. D. Crace [H. A.]; Division IV. Sculpture, Mr. T. Stirling Lee; and Division IV. Professional Practice, Mr. Edwin T. Hall [F.]. With reference to the instruction given by the Association, the *A. A. Notes* for December has (p. 70) an excellent article, headed "The R.I.B.A. Examinations."

REVIEWS. IV.

(6 *contd.*)

THE ARCHITECTURE OF BURMA.*

Papers on Subjects relating to the Archæology of Burma. By Dr. Forchhammer [*Government Press, Rangoon.*]

The kind of building in Burma, which is the same as the stupa or tope of India, and to which we still give the name of pagoda—although that word has long ago dropped out of the literature of architecture—the Burmans call *Tsé-dee*. According to General Fytche,† these monuments are arranged in four classes—"1st. *Dar-dan tsé-dee*, or those "containing supposed relics of a Buddha or Ra-"handa. 2nd. *Paree-bau-ga tsé-dee*, or those "containing supposed implements or garments "which have belonged to Buddhas or sacred per-"sons. 3rd. *Dhamma tsé-dee*, or those containing "books or texts. 4th. *Oo-deit-tsa tsé-dee*, or those "built from motives of piety, and containing "statues of Buddha or models of sacred buildings, "generally in precious metals." The two last are the most numerous.

If these tsé-dees were originally constructed from Indian models, they have undergone a considerable transmutation in the process of copying. The round, dome-like form of such stupas as that of Sanchi, or the Dagobas of Ceylon, has all but disappeared, and we have in the Shwé Dagon of Rangoon—the one with the Eight Hairs,‡ and which is a good typical example—a long, tapering spire, not unlike the neck of a sherry decanter. The dome can still be traced, but the large terraces of the base, and mouldings on the top of it, are so prominent that this part is almost lost in the general design. The square box, called a *tee*, which surmounts the Indian stupas has completely vanished, and the *htee*—which is no doubt the same word—is in Burma a framework of iron, described by Fytche as formed of three crowns, but it may be assumed that they represent umbrellas, thickly gilt and studded with jewels. This forms a brilliant pinnacle which surmounts the whole monument. The importance of this particular member of the shrine may be imagined when it is stated that about twenty years ago the King of Burma made an offering of a new *htee* to the Shwé Dagon, and it cost £62,000. It was made in Mandalay, and brought down the river with great ceremony. According to Dr. Forchhammer, this pagoda was founded as early as 588 B.C., or 43 years before the death of Buddha.

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* See, for the first portion of Review, pp. 61–62 *ante*.

† *Burma Past and Present*, vol. ii. p. 164.—W. S.

‡ In addition to the eight hairs, the monument also contained the staff of Kokoothanda [Krakuchanda], the Water-dipper of Konaggamma [Kanaka], and the bathing garment of Kathaba [Kasyapa]. These were the three previous Buddhas that have appeared in former kalpas; and their relics were probably enshrined somewhere in the base of the pagoda at each of the four cardinal points. Yule noticed that statues of each of these four Buddhas were so placed in the Ananda pagoda at Pagán.—W. S.

This date is based on the traditional account of the two merchants who received the eight hairs, and may be considered to be quite as legendary as that tale. It is 321 feet in height; and the Shwé Mawdaw pagoda at Pegu, a very similar monument, is 324 feet.

Some of these pagodas have square bases, others are octagonal, and many are circular. Although the Shwé Dagon is the most common type, there are other forms to be found besides. Yule gives an illustration of the Khoung-moo-dau pagoda, which has a dome 100 feet in diameter. The general design of this monument may have been copied from the Sanchi stupa, as it has a stone railing round it, with torans, or ga'eways, to each of the cardinal points. The architectural details in this case are Burmese, and have no resemblance to the Indian model. Some, again, are evidently copies of the Ceylon Dagobas. There is a photograph in Forchhammer's Report giving a general view of the ruins of Pagán, and in the foreground there is a small pagoda, the type of which has most probably been copied from the Chortens of Tibet. At Mengoon, again, there is a vast structure which bears some resemblance to the great temple of Boro Boddor in Java, and may have been constructed in rivalry with it.* At the same place there is a small mountain of brickwork (Yule computes it as about 6,000,000 or 7,000,000 cubic feet) which was to have been a tsé-dee, or dagoba, about 500 feet high, and which was constructed about the beginning of this century by the King Bodau Phya. The square base only was erected, which is 230 feet on each side, and more than 100 feet high. This was shattered by an earthquake in 1839, and has remained a ruin ever since. Yule gives an illustration of it, as well as that of a small model.† The dome in this case was to have been square in plan, as well as the base. In this slight sketch of these monuments I have not quite exhausted all the various forms that belong to them, but they will be sufficient to indicate the wide range from which the architecture of Burma appears to have been influenced.

There is another type of temple in Burma, but it is not so easy to define the class it belongs to. It is to a certain extent a solid mass of building, and on that account might be called a stupa; but there are galleries which penetrate their interior, and vaults or chambers for statues of Buddha—features which do not belong to stupas in India. This kind of temple might be described as a cubical mass, with porches projecting at one, or at times on each, of the four sides. On the top are terraces—or they may perhaps be simulated roofs—and the whole is surmounted by a sikhara, or spire, which has been copied from the Brahminical temples of India. Yule gives a sketch of the Putoh-Budho-Nya pagoda at Pagán,‡ and instead of the sikhara it has a spherical-shaped dagoba of the Chorten type on the summit. Yule considers that this temple has aspects which are "suggestive "of great antiquity." If this is, as he seems to think, an early type of the structure, its origin from some kind of a stupa might be possible. On the other hand, again, Yule records a tale about the Ananda temple at Pagán, and says:—"Tra- "dition has it that five Rahandahs, or saints of "an order second only to a Buddha, arrived at "Pagán from the Hema-woonda, or Himalayan "region. They stated that they lived in caves in "the Nanda-moola hill [probably the Nunda-Devi "peak], and the king requested them to give him "a model of their abode, from which he might "construct a temple. The Rahandahs did as "they were requested, and the temple being "built, was called *Nanda-tsee-goon*, or the 'Caves "'of Nanda.'" The word Ananda, by which the temple is now known, is a corruption of its first name. The arched passages of the interior might be likened to caves, but this story fails to account for the exterior design. As no building of this kind is known of in India, it may be possible that it came from Tibet. They are peculiar to the north of Burma. Yule states that he saw none of these temples as he ascended the Irawadi till he came to Tentabeng, which is close to Pagán; but old Pagán, a former capital,* from which the type most probably came, is still farther north, near to Bhamo, not far from the Chinese frontier, and thus within easy reach of Tibet. This limitation to the north gives a colour of probability to the Himalayan origin; and if this were really the case, the Tibetan *Chorten* may have been the germ from which it was developed. The chorten is a solid structure, identical with the stupa or dagoba, and is a relic-holder. In Tibet they have a high square base, on the top of which are a series of steps, and on this stands the domical part of the monument. By enlarging one of these chortens, and constructing chambers inside of its square base, to represent the caves of the Rahandahs, which required doors and porches, a pagoda of the Ananda type would be produced. It need scarcely be said that this is given here as the merest guess.

The kyoungs, or monasteries, of Burma have a special interest, as they are constructed of wood, and are representative of one of the original wooden styles of architecture which at an early date prevailed over a part of India and Ceylon. Yule gives a plate representing the Royal Monastery at Amarapura, which is covered with the most elaborate ornament and minute carving in the Burmese style. These monasteries are raised above the ground by means of wooden columns; the one at Amarapura stands, according to Yule, on 404 "noble pillars." The stone columns which are found in such quantities as the only remains of viharés, or monasteries, at Anuradhapura, in Ceylon, belonged to a similar style of construction. The building stood on these in a succession of storeys, each one being of smaller area than the one beneath it, thus producing a

* An illustration of this will be found in Fergusson's *Indian and Eastern Architecture*, at p. 625.—W. S.

† *Mission to the Court of Ava*, pp. 169–70.—W. S.

‡ *Ibid.*, p. 50.—W. S.

* There was a still older capital near to the site of old Pagán, called Tagoung.—W. S.

pyramidal form. The pyramidal gopuras of the temples of Southern India had their origin in this arrangement. Fah Hian describes the "Pigeon "Monastery" that he saw in the Dekhan, in the fifth century A.D., which had five stages. Its form is indicated by the number of cells on each floor; the lowest had 500, the next 400, and the uppermost only 100. These stages still survive in the Burmese monasteries, but no one occupies those above the first floor; because, as Yule explains, there is a rule of rank that no one of admitted inferiority can take a more elevated position than a superior; hence, he says, there is no such thing, properly, as a two-storeyed building in the country, excepting some few belonging to foreigners. From this it is evident that the storeyed form is older than the custom which rank has introduced. This rule is far from being in accordance with Buddhist ideas, as the teaching of Gotama was that the path to Nirvana consisted in a complete detachment of the mind from all worldly things.—WILLIAM SIMPSON.

(8.)

PRINCIPLES OF ORNAMENT.

1. *Elementary Principles of Ornament. By James Ward, Head Master of the Macclesfield School of Art.* 8o. *Lond.* 1890.
2. *The Principles of Ornament. By James Ward, Head Master of the Macclesfield School of Art. Edited by George Aitchison, A.R.A., Professor of Architecture at the Royal Academy of Arts.* 8o. *Lond.* 1892.

[*Chapman & Hall, Ld.*, 11, *Henrietta Street, Covent Garden.*]

These books, though bearing different titles, are practically first and second editions of each other, and the new volume might be better described as a revised edition of the *Elementary Principles* than by its present more ambitious heading. The two differ very little in size, and are alike in scope and method. With the exception of Professor Aitchison's able and suggestive introduction to the new volume, the alterations in it are mainly such improvements in detail as might naturally be expected in a second edition. The rest of the editorial additions and criticisms are not given separately, but are embodied in the text, which has also been improved in division and arrangement, pruned and rendered clearer in expression, and enriched by further examples and references; while the illustrations have been increased in number from 122 to 145, the new ones being mostly better executed than the old, besides gaining in effect from better paper, in which, as in general "get-up," the new edition far excels the other. As, further, it must entirely supersede it, it is needless to say more, except of the new one.

The new book, which, though of very moderate compass, must be the fruit of considerable research and labour, is essentially a text-book for beginners, especially in the Government Schools of Art; it does not aim at giving a complete review of all styles of ornament, even of all the civilised styles, or at providing a collection of actual copies of detail (for the illustrations are mainly diagrams and rough sketches), but it lays down authoritatively certain general laws for design, and recommends some particular examples for study and imitation: it may not be fair to say that the authors deliberately counsel imitation—in some passages they deprecate it—but the actual tendency of the book would seem to be the perpetuation of certain old established forms. Considering the difficulty of treating such a subject within 140 pages, the authors have been very successful in bringing together such a remarkable array of instances and deductions, and they have made an important addition to the somewhat scanty list of books (in our own language at least) dealing with the canons, and not only with the achieved results, of decorative art. Such excursions into the abstract are a pleasant and wholesome change from the mindless copying of which much contemporary "art" consists; and much good may be expected to follow from an increased application of mind to the methods and practice of design. The present treatise does not, however, contain any novel conclusions; the gist of it is simply an insistence that the classic styles (comprehending the Greek, Roman, Byzantine, and Italian Renaissance, but for practical adoption preferring the Roman and Italian) are so immeasurably superior to all others, that all present and future work in England as well as elsewhere must follow them, and them alone. Whether this is "a consummation devoutly to "be wished" cannot be discussed just now, but that it should be is inculcated here with great skill and plausibility under cover of teaching "general principles." The authors probably hold with Captain Fluellen, with his perpetual recurrences to "the disciplines of the pristine wars "of the Romans," that the practice of "the "ancients" is the only standard of excellence; but to those who find something worthy of rational admiration as well as love in the work of our own forefathers, it is hard to find English, and indeed all Northern art, well-nigh ignored, and only alluded to with contempt, in a book which, to justify its title, ought to cover the whole field of good ornament. Amid a host of excellently rendered examples of the choicest productions of Classic art, English Gothic is represented here by a single miserable specimen, purporting to be from Stone Church, but seemingly copied from a poor woodcut in Owen Jones's *Grammar of Ornament*, —a feeble caricature of the original.

Ought there, however, to be any fighting at all over such matters? The Science and Art Department, under whose auspices this book is published, has for long considered its proper function to be that of a "Society for the Propagation of Italian "Art in England," and alike in its museums and its schools has waged war against our native style. Its antagonism has not been ostentatious; but its attempt to starve out English art is unmistakable. Happily, though, the day for enforcing uniformity in art has gone by, and there is a future yet for our despised English style. This formulating of rules for design, and trying to bring it about (even by law if necessary)

that every one must work in strict accordance with them, has been a favourite dream of monarchs and statesmen, as well as of artists and critics; but, magnificent as is the idea, and the fascination of it cannot be denied, its accomplishment is now no more to be expected than that of a complete fusion of every existing political or ecclesiastical party into one harmonious brotherhood. Neither dogmatic assertions nor even mathematical demonstrations, as to the relative superiority of different styles, ever carry real conviction; sentiment, mainly the result of inheritance or of very early association, plays after all the principal part in shaping our artistic likings. Therefore, while regretting that *The Principles of Ornament* takes so much narrower a range than is professed by its title, and while unable to welcome it except as a treatise on the theory and practice of *classic* ornament alone,—on which subject it is indeed a well written and valuable one,—these remarks will be taken, I trust, only as a plea for the toleration of variety in style, and not as an attempted condemnation of the book in question, still less as a challenge to a renewal of "The Battle of the "Styles," the weapons of which are, it is to be hoped, buried for ever.—ARTHUR S. FLOWER.

MINUTES. III.

At the Third General Meeting (Ordinary) of the Session, held on Monday, the 5th inst., at 8 p.m., Mr. J. Macvicar Anderson, *President*, in the Chair, with 29 Fellows (including 4 members of the Council), 30 Associates, and 32 visitors, the Minutes of the Business, Special, and Ordinary Meetings, held on Monday, the 21st ult. [see pages 57–58 *ante*], were taken as read and signed as correct.

The following members attending for the first time since their election were formally admitted and signed the Registers of Fellows and Associates respectively, namely—Richard H. Hill, Charles W. Bevis (Southsea), *Fellows*; Frank M. Harvey, and Edward Thornton, *Associates*.

The President announced the names of 75 gentlemen who in the November Preliminary Examination, held in London, Bristol, and Manchester, had qualified for registration as Probationers; and of 12 gentlemen who in the November-December Examination in Architecture, held in London, had qualified for candidature as Associates [see pages 69–71 *ante*]. The President further announced that the Ashpitel Prize had been awarded to Mr. Alfred C. Houston [*A.*], and that an extra prize, to the value of five guineas, had been awarded to Mr. Harold Brakspear.

Whereupon it was, on the motion of the President,

RESOLVED, that the thanks of the Institute be recorded to the Board of Examiners in Architecture, the Bristol Society of Architects, and the Manchester Society of Architects for their labours in connection with the November Examinations.

A Paper by Mr. William C. Street [*F.*] on "Some Problems of Town and City Development," was read by the author.

In the discussion which ensued Mr. Wm. Woodward [*A.*], Mr. Lewis Angell [*F.*], Mr. Arthur Baker [*F.*], Mr. Henry Dawson [*F.*], Mr. Hugh McLachlan [*A.*], Mr. P. Gordon Smith [*F.*], Mr. Edward Bond, and Mr. Thomas Blashill [*F.*] took part. Whereupon it was

RESOLVED, that the thanks of the Institute be recorded to Mr. William C. Street for his Paper.

Mr. Street having replied, the Meeting separated at 10.15 p.m.

CHANGES OF ADDRESS.

[See *The R.I.B.A. Kalendar*, 1892–93.]

FELLOWS.

1877 †Gundry: Horace, District Surveyor of Paddington; 20, Warwick Cresc., Paddington, W.

1880 Stent: Sydney, M.INST.C.E.; 43, St. George's Street, Cape Town.

1871 1880 Willey: Robert, 33, New Bridge Street, E.C.

ASSOCIATES.

1892 †Corlette: Hubert Christian, 18, Selwood Place, Onslow Gardens, South Kensington, S.W.

1891 ‡Cressall: Walter Thomas, 20, Bishopsgate, E.C.

1882 †Hamilton: Frederick William, care of Messrs. Reed, Smart & Tappin, 11, Elizabeth Street, Melbourne.

1888 ‡Hellicar: Evelyn Arthur, 10, Serjeants' Inn, Fleet Street, E.C.

1882 Hewitt: Edward, [22, Brentwood, Pendleton] 9, Albert Square, Manchester.

1890 ‡Hoskings: Archer William, care of Messrs. W. Gardiner & Co., York and Clarence Streets, Sydney.

1889 ‡Ibberson: Herbert George, 35, Bucklersbury, E.C.

1888 ‡Jenkins: David, 2, Abbey Terrace, Llandilo, South Wales.

1890 ‡Luck: Harold Rose, Park House, Park Place Villas, Maida Hill, W.

1882 Montgomery: Henry, 42, Grainger Street, Newcastle-on-Tyne.

1872 Morley: Frederick, 190, Brunswick St., Dublin.

1891 ‡Musto: Frederick, [1, Eldon Terrace, Reading] 9, Archway Street, Leeds.

1891 ‡Sim: Edward Howley, 4, St. James's Place, St. James's Street, S.W.

1891 ‡Twist: Joseph William, 12, Eastbourne Grove, South Shields.

1892 ‡Watt: James Cromar (*Tite Prizeman* 1890), 21, Victoria Street, Aberdeen.

1887‡†White: William Henry, 5, Chapel Place, Cavendish Square, W.

1892 ‡Wills: Frank Reginald Gould, 8, Honeywell Road, Bolingbroke Grove, Wandsworth Common, S.W.

1887 ‡Wills: Herbert Winkler, 29, Gayton Road, Hampstead, N.W.

1879 Woodward: William, F.S.I., *Auditor*; [7, Duke Street, Adelphi, W.C.] 13, Southampton Street, Strand, W.C.

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SESSIONAL NOTES.

Institute of New South Wales.

The fourteenth non-Metropolitan Society allied to the Royal Institute of British Architects has for its headquarters the capital city of the great colony of New South Wales. Founded in 1871, it was only incorporated about two years ago under the Companies Act, its Memorandum of Association bearing the date of 29th April 1890. Its Articles of Association, which also bear that date, are almost identical in terms with the By-laws of the central body, while its Schedule of Practice and Charges, which has already been described in *The R.I.B.A. Journal*, is more complete than that of the Royal Institute at home. The words of the petition for alliance, read by the President to the General Meeting on Monday, that "in return for this benefit we promise that the good name and interests "of the parent body shall be upheld and protected to the best of our ability in this "portion of Her Majesty's dominions," were received with a movement of applause and satisfaction. Five of the original founders of the Sydney Institute signed the new Memorandum and Articles of Association with the other members present at the General Meeting when those documents were passed and adopted; and no one has spoken more highly of Mr. Horbury Hunt, the President now in office, to whom so much is due, than Mr. G. Allen Mansfield, who was President some twenty years ago.

About "Getting Art."

It is to be hoped that *The Times*, after its recent triumphant stand for literary copyright, will overlook the somewhat big cutting here made from its most admirable criticisms on "Culture in a hurry." Though few deny that every one ought to read *The Times*, every one does not get the chance or time to do so regularly; and those architects who have missed its article of the 13th inst. about the culture in Art that is to be studied everywhere, may perhaps be induced by this reference to look up the whole article, enjoy its literary allusions, and learn that culture, having got the thin edge of the wedge into art, has now driven the thick end home into literature. But, to quote with more precision, here is its opening paragraph:—"We have now undeniably 'got culture,' and it is to be studied "everywhere. The least unconventional upholsterers publicly profess their anxiety to "deal in 'art stuffs,' 'art curtains,' 'art embroidery,' and 'art pottery.' These things "were not so in the dark ages of the sixties, when Mr. Matthew Arnold, it is believed, "first began to preach the gospel of culture to a still unawakened middle class. In "those years art was a substantive; now it is an adjective, and may be applied to "almost any object of domestic furniture. We have art coal scuttles 'in our midst,' "a phrase which culture has borrowed from religion, so sisterly now are the relations

"of these distinguished abstractions. Even in lodgings the explorer discovers art "pokers and shovels, made of sheet brass so thin that it doubles up and droops like a "weary flower in the stern daily conflict with duty. These art shovels and tongs are "useless indeed; the joints are loose, and our fingers are nipped between the chinks "of the sheet brass without and the cold iron within. Still, there is brass here, and "art, though the citizens be driven to using their fingers as tongs and the toes of their "boots as pokers." The article proceeds to state that as a little religion seems to go a very long way, and in certain instances not to include the virtues of meekness, sweetness, lowliness of heart, and unselfishness, so a little culture goes a long way, makes a great deal of show at the price, and, on the whole, resembles the ramshackle loose tubes of brass which decorate the art poker, and unsuccessfully veil and greatly interfere with the usefulness of the iron within; that, furthermore, in the art of painting, there are now to be studied "art pictures" which differ from the pictures of artists such as Titian, by representing nothing in particular but messes of green and grey, or of yellow and red. "The sitter of the art portrait painter," says *The Times*, "has "frequently, in accordance with this view of things, a somewhat dissolute air; in other "cases, an air of impending dissolution. The most distinguished art landscapes seem "to have been rather impatiently 'handled' (if we may use that term) by the great-"toe of the impulsive art painter. Effects of nature are rendered as they might be by "a short-sighted person in a hurry, who happened to prefer to tool with his elbow, "and to regard a hasty wipe with his shoulder as the most that could be demanded of "him in the way of brush-work. One is reluctant to believe that this was the method "of Velasquez, but his name is usually much on the lips of the painters of art pic-"tures, technically so called. All their productions, at present so generally admired "by the cultured multitude and some cultured writers, are themselves the children of "culture. They certainly strengthen the opinion that culture is an exceedingly ductile "and malleable quality (like the most precious of the metals), which can be so treated "as to cover a vast deal of space at an outlay relatively inconsiderable." The article then treats, in the same vein, of similar phenomena conspicuous in literature, showing that culture has taken the place of reading, of education, and of scholarship. That nothing is said in it of "art architecture" is a happy augury for the future, and may be regarded as a compliment to those who are capable of saying so much about that redundancy for themselves.

The Worshipful Plumbers.

The Lord Mayor, as Master of the Worshipful Company of Plumbers, entertained at the Mansion House, on the 14th inst., a very representative gathering from all parts of the United Kingdom. About 250 guests sat down to dinner, among them being a large number of persons officially engaged in educational work, some thirty mayors, the Presidents of the Royal Colleges of Surgeons and Physicians, with the Presidents of other corporate bodies, the Principal of King's College, Professor Geddes of the Dundee Technical Institute, Dr. Sorby of Firth College (Sheffield), Dr. Gibbs Blake of Mason's College (Birmingham), Professor Garnett of the Durham College of Science (Newcastle), the Presidents of the Yorkshire College (Leeds) and the Belfast Technical School. Among the architects were Mr. Connon of Leeds, and Mr. Hadfield of Sheffield, Mr. Blashill, Colonel Haywood, Mr. P. Gordon Smith, and others. The Institute was also represented, and perhaps those architects present who could not hear the Lord Mayor's speeches would do a good turn to other sufferers from the same cause,—who formed the majority,—were they to suggest the introduction into the Egyptian Hall of heavy curtains between the columns immediately behind the seats occupied by the Lord Mayor and his supporters, with perhaps a canopy over that portion of the high table. Such an arrangement, far from injuring the appearance of the hall, would improve it, and it might enable the principal speakers to be heard. As it was, and as it always is in the great dining-room of the Mansion House, only intermittent sounds of utterance, like a distant

cannonade, were heard at the four corners of the hall. Conversation of a more or less lively kind was therefore inevitable among groups removed, owing to acoustic defects, from the central flow of rhetoric; and as, under similar circumstances in the seventeenth century, to paraphrase the verse of a witty canon of Ambrun—

. . . . au cabaret,
Entre le blanc et le clairet—

men may have brightened even over less poetical subjects than traps and valves and automatic service, so some of the Lord Mayor's guests consoled each other with short extempore speeches, which, though they were not got by heart, undoubtedly came from it, and thus the evening passed merrily away. Sir E. J. Reed and Mr. Arnold Forster were both there as silent legislators; and so was Dr. Tanner. But no Cabinet Minister was present, and the dinner passed off with hardly an allusion to current politics, and without an incident of contention respecting the impolitic results of bad plumbing.

Picture Gallery Decoration. Mr. Clement Heaton, who, being absent abroad, was unable to hear Mr. Crace's Paper on "Picture Gallery Decoration," writes on the 11th inst., from Neuchâtel, Switzerland, as follows:—A half-toned ground, such as would give value to both the darks and lights of the paintings, should be aimed at; the ground should be retiring and attract no attention to itself, and should be of such colour and *texture* as to both harmonise and contrast with the pictures. To attain this end a surface broken up into minute lights and shades by a delicate relief is preferable to a flat surface: and a diapered surface preferable to a plain one, both for the reason that the details of a picture tend to look confused and fussy if hung on an absolutely plain surface. And this plainness is not only detrimental to the painting, but gives the room itself a harsh effect. As to colour, it is desirable that the colour in the pictures should be slightly *echoed* on the surrounding wall-space, so that picture and wall become one *ensemble*: and this would be arrived at by using several *very low-toned* colours so arranged as to fuse into one general indeterminate effect at a little distance. A general tone of red of any shade is too obtrusive, and white or any other light tone still more so, while much colour is both unsympathetic with the pictures and repulsive in itself. The use of low-toned golden surface, modelled with a low and close relief, treated with colours as in the Spanish leathers, but in much more delicate fashion, seems to offer the maximum of advantages. The contrast of metal and colour has been, from the time of the Greeks onward, recognised as harmonious. During the middle ages it was a recognised system of decoration and a central law in heraldry; and the same principle modified to our requirements would probably yield the happiest results. I have myself tried this on a small scale, and found it to answer.—Clement Heaton.

Students' Prize Drawings. The Annual Exhibition, at the Institute, of the Designs, Drawings, and Sketches submitted in connection with the several Studentships and Prizes, opens on the 6th prox., and closes after the termination of the General Meeting of the 16th prox., when the presentation of Medals and Prizes takes place and the Presidential Address to Students is delivered. The last day for receiving such drawings, &c., is Friday, the 23rd inst., at 4 p.m., the office and library of the Institute being closed on Saturday, the 24th inst., and on Boxing Day.

Darkest London. It may be worth while to record that the shortest day of 1892 was made shorter to men of business by the fact that the London County Council, like the philosophers of Laputa, were unable to hear the reasonable demand of ordinary men for artificial light in the streets of London during the fogs with which the giant capital is periodically visited. At the best of seasons, and in the brightest weathers, London is dark; but a fog produces not only darkness visible: the blackness is so felt that the best quarters of the town are dangerous. If the County Council would but consider metropolitan wants from a practical standpoint, the streets would be lighted during a winter's day, even more religiously than on a summer's night.

PROCEEDINGS.

Monday, 19*th December* 1892.

[Mr. Macvicar Anderson, *President*, in the Chair.]

Fourth General Meeting (Ordinary).

The preliminary business, which included the nomination of 14 candidates for membership, was followed by a communication respecting the reconstituted Institute of Architects of Sydney, which Institute had petitioned for alliance with the parent body.

ALLIANCE OF THE INSTITUTE OF ARCHITECTS OF NEW SOUTH WALES.

THE PRESIDENT.—I now desire to move a resolution, in respect of the alliance of another Society with the Royal Institute of British Architects—namely, the Institute of Architects of New South Wales (hear, hear). This subject has been under consideration for some time, but, owing to circumstances which it is not necessary to specify here, further than to say that amongst a certain number of our colonial friends there appears to have been a slight want of unanimity, there has been some delay in the matter, but the time has now come when the Council consider that they are justified, and I may also say gratified, in proposing to admit to alliance the Institute of New South Wales. I will, with your permission, read the petition which the Institute has presented to the Royal Institute. It is dated 21st March 1892, and is addressed to the President and Council of the Royal Institute of British Architects.

12 *and* 14, *O'Connell Street, Sydney,*
21*st March* 1892.

GENTLEMEN,—At a Special Council Meeting of the Institute of Architects of New South Wales, held on the 21st day of March 1892, your important communication of the 11th February 1892, addressed to our President (Mr. J. Horbury Hunt) was read by him and received by the Council with much enthusiasm.

It was resolved that the following petition be at once forwarded to you:—

TO THE PRESIDENT AND COUNCIL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

GENTLEMEN,—Your communication to our President gives the Council of this Institute an additional incentive to persevere in their endeavour to place the profession of Architecture in this Colony on a sound basis, and raise our professional status to such a standard as must ere long secure to us as Architects the position we have a right to claim among our fellow-men.

In petitioning for the honour of alliance with your Institute we do so with every confidence that you will favourably consider and grant our prayer; in return for this benefit we promise that the good name and interests of the parent body shall be upheld and protected to the best of our ability in this portion of Her Majesty's dominions.

The annexed documents will show that in reconstructing and incorporating the Institute we have been guided by a feeling of loyalty in taking the spirit of the constitution of the Royal Institute of British Architects as a fundamental guide in framing our own constitution.

The By-laws referred to in your communication will be truly observed, and are taken to read as follows [here are inserted By-laws 77–81, both inclusive, as printed in *The R.I.B.A. Kalendar* 1892–93, pp. 50–51].

Annexed are our (1) Memorandum and Articles of Association, (2) Copy of Certificate of Incorporation, (3) Code of Professional Practice and Charges, and (4) Membership Roll.*

We, the undersigned, for and on behalf of the Council and Members of the Institute of Architects of New South Wales, subscribe our names to this our humble petition for alliance with the Royal Institute of British Architects.

J. HORBURY HUNT, President.
JOHN B. BARLOW, Secretary.
R. CLARENCE BACKHOUSE, Assistant Secretary.

This is the first application for Alliance we have received from a Society outside of the United Kingdom. Therefore it is to a certain extent a new departure, and I have the greatest pleasure in proposing, that it be complied with, because the Institute of New South Wales has done much during the past few years to maintain a high standard of professional character and excellence in the Colony. It has had a good deal to contend with in that respect, and its conduct and bearing in the circumstances appear to me to have been worthy of the highest commendation. Its paper on professional practice was published in our own *Journal of Proceedings* some time since, and any of you who may take the trouble to carefully peruse it will agree that it is worthy of a Society applying to be admitted to alliance with us. I think the Sydney Institute deserves every recognition and support which an alliance with the central body can bestow. I therefore have great pleasure in moving, That the Royal Institute of British Architects do admit to alliance therewith, under the provisions of Section XVII. of the By-laws (Nos. 77–81), the following Society: The Institute of Architects of New South Wales, Australia.

PROFESSOR AITCHISON [*F.*]—I shall be most happy to second that.

The resolution was then put, and carried unanimously [see Minutes, p. 104].

THE HYPÆTHRAL TEMPLE.

Abstract of Dr. William Dörpfeld's Paper.

After briefly summarising the violent disputes about the question of the existence and form of the hypæthral temples, and the diametrically opposed views thereon, as exemplified in the opinions of L. Ross and C. Bötticher, the author expresses his opinion that recent excavations have completely settled this point. Penrose's excavation of the Olympieion at Athens showed that this temple was octastyle, and thereby a new light

* All these papers may be seen in the Library.

was thrown upon the description of hypæthral temples given by Vitruvius (iii. 1). On this passage has been based the opinion that the Parthenon at Athens and the Temple of Zeus at Olympia were hypæthral temples, and from this it was deduced that all the peripteral temples similar to these, with an interior order of columns, were hypæthral. By way of showing that this view is now untenable, the author proceeds, first, to note the chief arguments used for and against the existence of hypæthral temples. (1) It is argued that the cellæ of many temples could not, from their size and from architectural reasons, have received the necessary light from the door, and so a top light must be taken for granted—though opinions differ as to the shape of this opening: wholly uncovered nave (K. F. Hermann); a small opening in the centre of the cella (C. Bötticher); openings of various shapes and sizes over the aisles (J. Fergusson). To this argument, and its assumption as to the amount of light needed, it is answered that although the light entering through the door of a cella could not have lighted up the interior in the way necessary for a modern museum, yet such an amount of light was neither necessary nor aimed at. The impression produced by the statue would gain in proportion as its details would only gradually be perceived by those entering, after they had accustomed themselves to the semi-obscurity. Some details of the chryselephantine statues were perhaps not distinguishable at all; but it does not follow from this that the door, as a source of light, becomes impossible. In the similar case of the sculptures on the exterior of temples — for instance, the pediment and frieze of the Parthenon — no one has deduced from the fact of their elaborate details (and even partly on their rear) that they could not possibly have been placed so high up on the temple. That the illumination from the door was, moreover, not so small as people usually suppose, is shown by J. Durm's tabulated statement of the proportion of the door-opening to the area of the cella of several Greek temples; to which must be added the consideration of the greater brilliancy of the Greek sunlight as compared with that of this country. (2) To the argument from the existence of altars in the interiors of temples—that an hypæthron was needed for the escape of the smoke from sacrifices—it is answered that sacrificial altars were generally in front, and not in the interior, of temples; and that ceilings blackened by smoke were not by any means considered unsightly. (3) The author rejects the argument from certain finds which have been deemed to indicate the existence of a skylight in the roof of some temples: such as the curb stone found near the Temple of Ægina, and the tiles with round openings near the Temples of Olympia, Phigalia, Tegea, and Athens. These tiles were used for the lighting of the roof, at least in those temples the roof of which was accessible, and when it was not thought desirable to put a window in the pediment. We have, therefore, no certain bodily proof for the existence of an hypæthron in a Greek temple. Nor have the defenders of the hypæthral temple laid any great stress upon the arguments indicated above. They have mainly based their theory upon the passage in Vitruvius. This passage, however, has now received through the excavation of the Olympieion at Athens an interpretation totally opposed to the one that it has hitherto received. The author discusses the passage, its *variæ lectiones* and different exegeses, and proceeds to show that whereas it is for philological reasons only that the new editors of Vitruvius have edited the passage so as to show that he only names a single example of an hypæthral temple (viz. the octastyle temple of Olympic Zeus at Athens), the late excavations have shown how right they were. It is now demonstrated that the Olympieion was octastyle, and not decastyle as has been commonly held; and every reason for believing that the "octastylos" of Vitruvius was the Parthenon has disappeared. The result of this demonstration is decisive for our argument. We are neither entitled to hold the Parthenon nor the Zeus Temple at Olympia as hypæthral temples, nor can we admit that the majority of peripteral temples with an interior columniation were lighted hypæthrally. Secondary arguments have now become unnecessary; and those who still wish to hold by their views in favour of hypæthral temples have the onus of producing positive proof that the ordinary peripteral temples must have been lighted from above. It is not denied that the hypæthral temple did exist; but the temples which received their light through the ceiling were exceptions compared to the great number that were only lighted from the door. The author enumerates these exceptions, and points out that we should probably regard the cella of some of them as an open space surrounded by a colonnade and a wall, while around this enclosing wall is placed still another single or double colonnade, according as the exterior is intended to appear as a peripteros or a dipteros. At the time of Vitruvius, moreover, the Olympieion was probably not in a complete state, while after the completion of the temple by the Emperor Hadrian the cella may probably have lost its hypæthral source of light. Some hypæthral temples, too, were those of gods who had to be worshipped in the open air. The author's conclusion is that though a few great dipteral hypæthral temples existed, the Greek and Roman temples had as a rule no light from above, and were only lighted from the door.

Professor Aitchison added the following remarks of Mr. Edward Falkener:—The main contention is not whether the Parthenon and the Temple of Jupiter Olympius at Athens were hypæthral, but what was the nature of an hypæthral temple; and as Dr. Dörpfeld insists upon there being no opening in the roof and that the light from the doorway would be quite sufficient: that according to his theory the great Greek temples were like the Egyptian temples, blazing with light outside, and impenetrably dark within. The opponents of the hypæthral opening in the centre of the roof, *i.e.* an opening which should at the same time be luciferous and ætherial, are, like the Parnellites

divided into two camps: those who, with Fergusson, believe the Greek temple was, internally, like a picture gallery, and those who, like Dr. Dörpfeld, believe it was internally like an Egyptian temple, dark, mysterious, and dreadful, and lit only by lamps and fires intended to awe and deceive the people. . . . I think that, independently of the plain, simple, and literal interpretation of Vitruvius, reasoning from analogy with the compluvium of the Roman atrium, and considering that the arrangement of a compluvium and impluvium was more congenial to a climate in the south of Italy than to Etruria, and that the south of Italy was a Grecian colony, and that after the fall of the Roman Republic, Italy looked to Greece for its civilisation, and its study of the Fine Arts, it is more probable that the Roman atrium derived its name, not from a country comparatively as far north as that of the Atrides (an idea which Professor Becker attributes only to the accidental similarity of name), but to the probable open roof of the Grecian *αὐλή*, Lat. *aula*, English *hall*, which corresponded to the Roman atrium, and that as this word *αὐλή* is translated in our lexicon as "*aula, locus subdialis, atrium*," its compluvium might justly be called *αἴθριον*; and that this arrangement of the Greek *αὐλή* is the arrangement of an Eastern climate, as we see in Damascus and Aleppo, where guests are received in an open garden; and, if so, it seems natural to suppose that the larger temples of the Greeks would adopt such openings in their roofs, thus rendering them cool, light, sweet, and beautiful; while at the same time, from a religious point of view, they connected their divinities with the heaven from which they came; and that in answer to the objection that it is impossible to suppose that such grand elephantine sculptures, the masterpieces of Greek art, could be exposed to heat and rain, we must remember that as the Grecian temples faced the east, the statue would be exposed only to the soft morning rays of the sun, and that its scorching rays at midday and afternoon would not touch it; and as regards rain, that the rain in summer is very gentle, and that the Romans did not mind it in their Atria, but rather loved it; while in winter, when they were occasionally visited with heavy rains, they could close the opening with hatchments, for which I believe we have authority; and that, with the vail or awning in summer and hatchments (with lights) in winter, no injury could happen to their works of art.

Discussion.

Mr. F. C. PENROSE [*F.*].—Mr. President and Gentlemen,—I have been listening, as you may suppose, with very great interest to this Paper which Professor Aitchison has brought forward—a translation of Dr. Dörpfeld's communication. The Doctor was kind enough to send me a copy, and I know it expresses his views perfectly. With regard to the substance of it, I agree in almost every point with Dr. Dörpfeld, only with some little exceptions. I think he has not done justice entirely to Mr. Fergusson's theory as to the lighting of the Parthenon; but perhaps before going to the Parthenon one ought to clear the ground somewhat, though Dr. Dörpfeld has done it before me. In this inquiry the Parthenon and the temple at Olympia are quite out of the running, and the whole interest of the hypæthral temples, so far as Vitruvius's remark goes, rests upon the Temple of Jupiter Olympius. But nevertheless, it is as well to say that the other temples, in my belief, had upper lights of the nature suggested by James Fergusson; but they were very small, though rather more than Dr. Dörpfeld allows as formed within single tiles, yet not so considerable as the clearstorey windows, if I may call them so, upon which Fergusson insisted in his well-known book *The Parthenon*. It is quite possible, as Fergusson has shown in his description of the temple at Bassæ, that two tiles may have been taken up by such openings, and they would have given a glimmer into the cella of the temple, because when the door was shut the light in the temple would have been very small indeed, if not almost extinct. However, the great object in temples, other than the hypæthral, was in the early morning. At the great festivals, and probably on other occasions, the worship was at sunrise, and at that time, especially on the great festivals,—for which occasions the temple was almost invariably so oriented that the sun at its rising shone straight along the axis of the temple into the cella,—the light would have been very great. It is not necessary on the present occasion to go into the question of orientation; but this is clear, that when the sun rose and went straight into the naos of the temple, it would shine with an intense light through the door. Then after the lapse of half an hour or thereabouts it would become much more dark; and probably towards the middle of the day if the doors were shut, and even if the door was open in a dipteral peripteral temple, such as that of Jupiter Olympius, as the light had to run the gauntlet of all these columns it would be so dark that really nothing could be seen, unless there were at least a glimmer of light from the roof in some way; and the tiles which have been found at Ægina and the Temple at Bassæ, would have been sufficient for persons to find their way, and just to see where they were, but would not be a light sufficient to show the beauties of the building. That might perhaps be sufficient with regard to ordinary temples, where the light was admitted, as Dr. Dörpfeld well explains, mainly from the doors. But then we come to the question of the passages in Vitruvius, which is a very interesting question indeed; and, especially as the work which the Dilettante Society did at Athens cleared up those extremely difficult passages, it is only right that something should be said about it. I hold that Stuart and others, who held the Decastyle theory, were thoroughly justified in what they held, under the original conditions. The passage of Vitruvius, after describing various descriptions of temples, comes to the Dipteros as having ten columns, and proceeds to say the hypæthral is like the dipteros, excepting as to the roof being open to the sky. There-

fore it follows by natural consequence that the hypæthrals ought to be decastyle. I think that Wilkins, in his very ingenious solution of the difficulty, was very happy in a literary sense, because he supposed that decastylus was a misreading, and that the word "asty," part of the "decasty," was intended to mean the great temple in the City, as distinguished from the Acropolis. "We have no example of these at "Rome, but there is an example of it at Athens "in the town." Vitruvius also in another passage speaks of the Temple of Jupiter Olympius as equal in magnificence to three other great temples—namely, that of Diana at Ephesus, that of Apollo at Branchidæ near Miletus, and of Ceres at Eleusis. Each one of these temples being about 170 feet in breadth, it was natural, therefore, to expect the Temple of Athens to have been about the same, which could only have been the case had it been decastyle. However, the diggings cleared up all that, and showed that the Temple of Jupiter Olympius was octastyle instead of decastyle. I have brought a plan of the temple. For the sake of putting the section conveniently over it, I have only given half the peristyle; but there are the whole of the cella, the opisthodomus, and the pronaos, and also the apartment which, with Fergusson, I hold to have been the hypæthrum. I think Fergusson's explanation of it is very nearly right. He supposes, following the representation of a coin, that the temple itself was covered with a barrel vault, which I have shown plain, but which must have been panelled or otherwise ornamented, and that the light was admitted by a great window at the east end of the cella. The interior order of columns is restored from a fragment obtained during the excavations. A piece of the column that could only be attributed to this order, and also a capital, have come to light, which combined showed very nearly the height of the columns suited to this place, and I have put them upon pedestals after the manner of other buildings in Athens built in the time of Hadrian. Therefore, we are not far wrong in estimating the height. That gives the height of the window above the cornice. Now it so happens that on the very day of the great Olympian festival, the sun in its course would shine straight through that window to the point where the statue is known to have been. The statue may not have been exactly so high, or it may possibly have been higher, and the pedestal a little less. But, at any rate, the sun shone exactly in that direction on the festival day of the Olympia, on the 19th or 20th of April, as it passed across the window. Therefore I think that also is very confirmatory of Fergusson's theory that there was a large semi-circular opening at the east end, which, of course, could be closed with curtains or other means when the weather was unfavourable, because, as Dr. Dörpfeld says most distinctly, it was quite necessary, when the chryselephantine statue was put there, that the statue should have been able to be protected against the very bad weather which Athens is liable to. As to the point of its having been a hypæthral temple, open entirely to the roof in Vitruvius's time, I expressly agree with Dr. Dörpfeld. If I may say so, I agreed with him four or five years ago, because in the *Principles of Athenian Architecture* there is this passage:—

> From the passage in Vitruvius in which he mentions hypæthral temples, it might be supposed that the Naos itself was "sub divo et sine tecto" (as indeed it appears actually to have been at Branchidæ), and it is possible that it may even have been so in the time of Vitruvius; but when the chryselephantine statue was dedicated by Hadrian it must have been protected from the weather; and as respects the lighting of the statue, nothing could have been more advantageous for this purpose than the high light admitted through a great window such as is represented.

Therefore, upon this ground I have the greatest pleasure in agreeing in the main with Dr. Dörpfeld's theory about the hypæthral temples. The great temple near Miletus, according to Rayet and Thomas's work, appears never to have had the columns within the naos. It was entirely hypæthral between the walls and the cella, or cella space. It was never roofed. I do not know that I need add anything more to this my entire general agreement with Dr. Dörpfeld's views, and I have the greatest pleasure in moving a vote of thanks to Dr. Dörpfeld, and to Professor Aitchison for bringing the Paper forward.

DR. ALEX. S. MURRAY [*H.A.*].—Sir, I am here as a mere learner at the feet of men like Mr. Penrose and Dr. Dörpfeld, and I have listened, as we must all have done, with the greatest interest to this discussion, and in particular I have listened with great pleasure to the very vigorous reply which Mr. Penrose has made to Dr. Dörpfeld. We all admire Dr. Dörpfeld intensely, but we also know that he is nothing if not thorough-going. I think I may say that we archæologists have generally held to the hypæthral temple. We are not practical people, but we read a little, and we have come to that conclusion. There is one thing that archæologists have always mentioned in regard to this question, and that is the treatment of the lacunaria in the colonnade of a Greek temple. Why should the lacunaria be pierced with a square hole in the centre, and then elaborately covered over on the top with a slab on which is painted a star, or something of that sort, unless there had been a previous time at which all these lacunaria had been pierced with square holes through which to let light into the colonnade? Then archæologists thought something of the same sort might very well have extended itself into the cella. Probably we are all wrong. There is an incident which is related by the great traveller Pausanias which I do not think I have seen discussed on this question,—and perhaps it is not worth while to discuss it: it might perhaps be explained in different ways. He says that a little before his own time, when the roof of the Heræum at Olympia had fallen into decay, and when it was determined to repair it, they found the body of an armed man in his armour between what he calls the sloping roof which supported the tiles of the temple, and the roof which

was meant to be ornamental. Then he says that this man had been wounded when the Eleians were fighting from the roofs of their temples, and that he got in somewhere between this sloping roof and the horizontal ceiling, had died there, and having been protected for centuries from the extremes of heat and cold, his body had suffered little decay. Now, people fighting there may have pulled off some of the tiles of the temple, and he might have crept in there. It seems to me also it might be possible that there had been some clearstorey arrangement through which he might have got in under protection. I mentioned this once to Fergusson, and he said he would certainly use it in favour of his clearstorey view. These are the only points that have occurred to me on the reading of this Paper, except, of course, the general sense of obligation that we are under to Dr. Dörpfeld and Mr. Penrose. I have very great pleasure in seconding the vote of thanks.

Mr. WYATT PAPWORTH [*F.*]—Sir, may I say a few words about these tiles which have been mentioned, and have, I think, been somewhat pooh-poohed? Perhaps I might call the attention of the meeting to a Paper which was read by my brother John W. Papworth, in 1866, entitled "Suggestions Respecting the Roofs of "Temples, called Hypæthral," at Ægina and Bassæ. I think he was the first to call attention to these tiles, as they are termed. "Tiles," as we know them in London, are about 10 inches by 6 inches, therefore the Meeting may perhaps be a little surprised to learn that the tiles, as described by Pausanias, of the Parthenon, were 2 feet 3 inches square, whilst those of the Temple of Apollo Epicurius at Bassæ were 3 feet 6½ inches long, $1\frac{3}{4}$ inch thick, by 2 feet $1\frac{1}{4}$ inch wide. Now that shows how very easy it would be to make an opening in them for light. The illustrations which were given in the Paper were taken from the researches of Mr. Cockerell and of Baron Haller. Some were engraved from Cockerell's sketch-book. They show the remains of the few tiles that have been found. Of course it is very natural to suppose that these tiles would be the first parts of the temple that would be taken away to be burnt for lime, as was usually done by the natives, and therefore very few specimens indeed have been found. There is in the British Museum a small tomb—it is illustrated in this Paper—where on the sloping roof something like openings are to be seen. I think Fergusson in his last book, which is on the table, has there brought forward two or three other examples, showing that mode of lighting. If those tombs were formed in imitation of the hypæthral temple, it would carry out to a great extent this idea of perforated tiles.—[The PRESIDENT: Is it known what the material of these tiles was?]—It was of marble. There is a passage in my brother's Paper to the effect that Byzes of Naxos was the inventor of marble tiles, and Cockerell calls attention to the improvements made by the Athenian architects in them. Perhaps because I know nothing about the matter, I am rather inclined, from what I have heard this evening, to form an opinion that the temples were lighted somewhat in that way, and not so entirely from the doorway; although I have to confess that I was very much impressed with a passage I read in some writer, that at the temple at Abousimbel or Ypsambul on the River Nile, on one morning in the year the rising sun passes through the doorway and lights up the figure of the deity at the further end of a very long excavated tomb—some 200 feet deep perhaps. I think neither the author of the Paper read to-night, nor Mr. Aitchison in his remarks, has quite impressed us with the passage in Vitruvius relating to the hypæthral temples. I hardly remember the words, but they express that the cella was "open under heaven," a passage clearly showing that it was, as Mr. Falkener has shown in the beautiful drawing on the screen, a clear space upwards to the sky. Some authors have described how this opening, or those of the tiles, could be covered in a few minutes to keep out sudden rains; or, as Mr. Falkener, I think, has shown, how the figure could be covered so as to keep from it the intense light and heat of the sun.

The PRESIDENT.—It is suggested to me to ask Dr. Murray to speak in reference to the tomb in the British Museum to which Mr. Papworth has referred.

Dr. MURRAY [*H.A.*].—That tomb, Sir, is in my department in the Museum, and I hope by-and-by it will be in a better light than it has been for a long time. I know it very well, and have seen it with Professor Aitchison and others. It does not strike me at all as being anything like an illustration on this subject. It is a very large marble tomb with a roof, but it has no indication of a roof made of tiles at all. There is a very small square opening near the ridge towards one end of the roof, and a similar one at the other end. These openings have been covered with small panels, which have fitted and rested on ledges; but what purpose they may have served in the case of a tomb I do not know. They might have served the purpose of putting in things on anniversaries, because, as we know, offerings were brought to the tombs on the anniversary of death. These openings do look a little like some process of lighting from the roof, but yet they do not strike me at all as anything like a reproduction of what such a system of lighting would have been.

Mr. PHENÉ SPIERS [*F.*]—Sir, it might be an advantage, now that Mr. Penrose is here, to have some further information with regard to the probable roof-covering of Greek temples. When I visited Athens some years ago, coming as I did from Egypt, and having spent five months among the temples there, I certainly came to the conclusion that the interiors of the temples in Greece were probably lighted in the same way as they were in Egypt—that is to say, through the doorway alone. The example which Mr. Papworth has cited of the Temple of Abousimbel confirms that. At the furthest extremity there were the three deities on a pedestal, and the sacred hawk, and these were lighted direct by the sun on one morning in the year from the door, which was 150 feet off. I was travelling at the

time with one of the students of the French School, Professor Brune, and we both came to the conclusion that a considerable proportion of the elaborate hieroglyphics which we found in these temples, and which were records of the religious ceremonies of the Egyptians, was not intended to be seen except on certain occasions, and then, by means of torches I suppose, the inscriptions would be read. It is difficult to know how these hieroglyphics could have been sculptured, because they are in absolute darkness, and yet from end to end of the cella the wall is sculpture. We can only assume that they were done before the roofs were put on. The chambers round the sanctuary were lighted by slits in the side walls—that is to say, the roof over these was a little bit higher than the chambers round them, and consequently light could be admitted. Now in the cases of the Greek temples, as Mr. Penrose has said, they were oriented in such a way that the light should enter in the early morning at sunrise. But the people were assembled outside, and were not allowed to go inside the cella. That was only, I believe, permitted to the priests, or to certain privileged persons whom they allowed. All the ceremonies of the temple in which the people took part were outside and in the peristyle; the cella of the temple was never entered by the ordinary public. That at least I have always imagined. Therefore, the only view which the public would have obtained of the statue would have been when it was lit up by the sun on its rising. Two or three points have been put forward in the discussion, and on these I should like to have some information from Mr. Penrose. In the first place, Dr. Dörpfeld says the roof, which was made accessible by special stairs, must have been lighted in some way, because the roofs to the temples were very solidly constructed of a layer of wood, of loam, clay, and big tiles, and that they allowed no ray of light to pass. Then Dr. Murray has informed us of the body of a warrior having been found between the sloping roof and the flat or ornamental roof underneath. We can quite understand what that means, but I do not see where the loam and clay and the big tiles come in in a temple which was almost entirely constructed of marble. The roof tiles were the real covering of the temple, and the wooden structure inside was made decorative. But the light which would come through the clear transparent Parian marble would be quite sufficient to light up the interior when the doors were shut. Dr. Murray throws a little more light upon the subject when he suggests, from the fact of the ornamentation of these coffers, the way in which they were constructed — with coffers covered with small marble slabs, having stars painted on underneath. Thus one could have a transparent roof above of Parian marble, and thus get sufficient light into the naos to be able to see there. I notice that Mr. Penrose, in the restoration which he has made of the Temple of Jupiter Olympius, has shown an entirely different interior from that which is clearly laid down in Vitruvius; that is to say, he has put a form of roof which, from the shading, seems to me to be semi-circular or of barrel-shaped form — something like Mr. Falkener's restoration of a semi-circular roof to the Parthenon, as shown in his drawing. Though, of course, at first sight one may be surprised that the Greeks should have adopted a circular form, yet there is not the slightest doubt that the arch was perfectly well known to the Greeks, and that probably in ordinary constructions it was commonly employed. In fact, in Professor Baldwin Brown's Paper read here some time ago, it was stated that the constructive value of the arch had been long known in Greece, but that the objection of the Greek was that he did not consider it was sufficiently stable and lasting. There is, however, no reason why decorating it should not have been employed, as shown by Mr. Falkener's drawing, and, if I remember rightly, Professor Cockerell also in his restoration suggests a segmental vault for the Temple of Bassæ. I do not object at all to the form: the only thing is to arrive at some conclusion as to whether, with an internal form as shown, all these coffers, for instance, may not have been left open, and then the light received directly from the roof. Now, with reference to Mr. Penrose's circular form of roof for the Temple of Jupiter Olympius, we have it distinctly stated in Vitruvius that there were two orders of columns, one above the other. Mr. Penrose discovered remains of the lower order, which he has placed in his restoration; and, assuming that Hadrian, at a later period, and after Vitruvius's time, placed the statue there, and it was absolutely necessary to protect the statue to cover over the cella, there is no reason again, I suppose, why the upper order of column should not have been left, and a flat ceiling put. However, those are points which I feel sure Mr. Penrose has thought over very long, and I am really only suggesting these questions, if I may say so, to draw him out and get more information on this subject now that we have got him among us.

Professor AITCHISON [*F.*]—Sir, owing to illness, and being obliged to go abroad, I have not been able to look up the passages bearing on the subject, so as to throw some little light on it if possible. But when I was engaged on this subject some years ago, I read all the authorities that I could meet with, the chief authority being Pausanias, and there were two difficulties that occurred. One was that Pausanias lived in the second century A.D., and the other, that he says nothing of the hour of his visit, nor whether the light was that of the day or of lamps. He went over many Greek temples, and he describes the statues very minutely, and in one of the temples he says the walls were painted; and, though he gives no idea as to the amount of light, he gives a very long and minute description of the gold and ivory statues at the Parthenon and the Temple of Zeus at Elis, and in the latter temple he describes a winding staircase that goes to the roof—at least, I think so, for I am not sure whether Pausanias speaks of Elis or Olympia. So there was a means of getting up to the roof then, as the

account of the dead soldier found in the roof of the Temple of Heré at Olympia that Dr. Murray found in Pausanias, pretty well showed; for the soldier must either have got up from a staircase inside, or have taken the tiles off the roof to get in. There is an account of a temple being stormed, and when the storming party got inside, the soldiers who had taken refuge on the roof destroyed them by throwing the tiles on to them. That there were lamps in some of the temples is clear, because Pausanias describes the lamp that was in the Erechtheum that had an asbestos wick, and with a bronze palm-tree over it reaching to the roof, and carrying off the smoke. If these cellas were absolutely dark after sunrise, or at any rate when the sun had got towards the west, the question is how the temples were lit, for, unfortunately, Pausanias does not say at what hour he went. Then, again, the opisthodomus of the temple, which was used as a treasury, was also occasionally used as a dwelling. We read in Plutarch that Demetrius Poliorcetes, when he freed Athens from the Spartan yoke, was so adored by the Athenians, that they gave him the opisthodomus of the Parthenon to lodge in. Of course, we hardly realise what a great boon darkness and its accompanying coolness are in a hot climate; but still, you would hardly think that a man would care about living in a place that had no light at all but when the door was open. There are many points we should be glad to hear about, if we can persuade Mr. Penrose to enlighten us, and this is one of the points: Dr. Dörpfeld's view of the Temple of Apollo Epicurius at Bassæ is that the northern part was open which has the Ionic columns round it, and from which those bas-reliefs were taken that are now in the British Museum. After Fergusson published his theory of the lighting of the Parthenon, M. Charles Chipiez wrote a pamphlet on the subject in 1878, and he instanced the Temple of Jupiter Panhellenius at Ægina as a strong proof of Fergusson's theory being right, for he tells us that M. Charles Garnier found the remains of bright red on the flutes of the upper columns, but none on the lower ones; and he accounts for this by saying that the light coming in from the back of the upper columns made the fluting imperceptible, and therefore they were obliged to make it visible by a very bright colour. Pausanias says that the Temple of Apollo the Helper at Bassæ was roofed with stone; but that may have merely meant the sanctuary where the statue of the god was. Some of the temples that Vitruvius speaks about were hypæthral, not because they were so designed, but because there were no funds to roof them. The cost of timber for the roof of the Apollo Didymaus would have been enormous, for the cella was 75 feet across. Pausanias repeatedly states that certain temples had no roof; and the Caaba at Mecca, which is spoken of by Diodorus Siculus, was an hypæthral temple, and the only cover it had in that burning sunshine was an awning; the silk coverings with which the Caaba is now draped were probably reminiscences of this sort of tent. The two points I should like Mr. Penrose to speak on are, his opinion as to the northern portion of the Temple of Apollo Epicurius at Bassæ, which Professor Cockerell discovered being open; and the other is as to the lighting of temples lit only by the door when it was afternoon. When I was in Rome I spent some time in making sketches of "San Lorenzo outside the walls." It was early in the year, when the light was not brilliant. These basilicas were originally like the Greek temples, with the entrance towards the east. After the time of Constantine, another church was added at the west end, and eventually the two apses were pulled down, and the square end, with a raised pavement, became the sanctuary. This is paved with marble, and is surrounded with marble seats. When it grew so dark that one could hardly see any colour, just before sunset the sun suddenly shone through a circular window at the west end on to the marble pavement, and immediately lit the whole space splendidly. The whole roof, which had before been perfectly invisible, flamed with red, and had deep shadows, so rapidly moving from one point to another that it was impossible to make a sketch. But it showed how a comparatively small opening will light up a large space when the sun comes directly through it.

Mr. HUGH STANNUS [*F.*]—Sir, may I, before Mr. Penrose rises, add one more question which he will be asked to solve? and that is as to the meaning of the word "hypæthral." Now, it appears to me, not having seen the Paper beforehand, and not having sufficient scholarship to understand Vitruvius, that he lays special importance on this point, that the hypæthral temples were dipteral. The suggestion I would wish to make to Mr. Penrose is that he give us his opinion as to whether this word "hypæthral" may be interpreted as meaning *isolated*. In the first place, I venture to think that two rows were intended for short transverse beams from the outer row to the inner row, stopping there and forming a stoa, so that the cella is isolated, with the stoa round it at each side. Of course, at each end the whole would be connected by the great pediment. If that be so, the temple would be isolated—that is to say, the temple itself would be under the æther, or "hypæthral." And that would account for his laying stress on the fact that there must be two rows of columns. We read of an instance of a temple with a stoa round it (though not so close as is here suggested), and the isolation would certainly add dignity to the cella, which is *the temple*.

Mr. J. M. BRYDON [*F.*].—Sir, may I add one other question for Mr. Penrose, as it is very seldom that we have a Greek scholar to explain knotty points? Are we to understand that there is no ceiling between the first window in the semi-circular arch and the first columns as shown, where the ray of light comes through? Are we to understand that there is no ceiling at all, and that over the portico there is an opening, and that the ridge of the roof is not complete? I should very much like him to give a little explanation on these points, if it is not troubling him too much.

Mr. PENROSE [*F.*].—Sir, certain questions have been asked, and so far as I can recall them, I will endeavour to answer them. One was with reference to the staircase up to the roof: there is no doubt about that. There is one very good, very well-preserved staircase in the Temple of Concord at Girgenti. I have been up and down it with great ease, and there are the remains of several others; but one example in thoroughly good condition carries the point. Where Dr. Dörpfeld speaks of the roofs being covered with loam as well as other things, he seems to derive that from an inscription no wise differing from a specification of a building connected with the harbour at Piræus, in which loam is mentioned to be used in connection with the tiles. These tiles were probably terra-cotta tiles, and it is quite possible that loam was also used in roofs covered with these great marble tiles. In Athens they are not of the ordinary Pentelic marble, which is of a comparatively close texture, but are always of Parian marble, which is remarkably transparent; and therefore I think, as Mr. Spiers has suggested, there was a great possibility of that marble being used to light the interspaces of the roof to some extent. But I certainly doubt whether any appreciable light could have come through openings in the lacunaria after having been transmitted through these semi-transparent tiles: you would have seen where the holes were, but nothing else. I think that Fergusson was quite justified in deducing from Cockerell's investigations, which Dr. Dörpfeld accepts to a certain extent, that there were certainly clear openings in some of the tiles—perhaps two together—but they need not have been very large to admit a considerable amount of light. Then when a question was asked about this barrel-vaulted ceiling, which I have shown over the cella in the Temple of Jupiter Olympius, I suppose that to be entirely of Roman construction, built when Hadrian finished the temple. I will say nothing about any remains of any superstructure having been found, because there are very small remains even of these; but the coins on which some of these late Roman temples are given distinctly show only one and not two orders of columns. Still, that is the only ground upon which this is so arranged. I understood Mr. Stannus to ask how this question bears upon the entire opening of the temple. Vitruvius most distinctly speaks of the interior part being so open—these are his very words, "*in interiori parte*"—so that involves his simply confining his attention to this part, the naos only; and in some temples—certainly at Branchidæ, near Miletus, and probably at the great temple at Agrigentum, and at this temple in the earlier days—it was, I feel quite persuaded, entirely open to the sky; but when Hadrian put in this statue, and the pedestal on which it stands, he would have covered it to protect it. There may have been a second order, but, judging from the coins, I should say not. Now we come to this question of the ridge of the roof. I hold that that ridge was continuous from end to end, but that here there was a double opening on each side of the ridge, because the carrying the ridge through would not have impeded the sunlight, and the skylights thus opening on the sides only would have been very little seen indeed in so flat a roof. Thus there might have been on the whole roof very sufficient windows opening close to the ridge, which would have admitted all the sunlight that was necessary to shine fully on to the naos. I cannot think that so much labour would have been expended on the cryselephantine statues and other works of art if they had only been intended to be seen by the people outside at a very great distance, because the distance would have been quite 200 feet, and the whole temple is about 350 feet long; therefore the people on the outside could not have had a very distinct view of the statue if they had only been allowed to see it in the early morning through the columns and the comparatively narrow door. I fully believe that they must have been allowed—under proper guidance—to come in and pay their adorations, chiefly in the morning when the light from the east was full, but also at other times of the day to suit the convenience of people who could come at no other time. The Temple of Apollo at Bassæ must have been lighted, I think (following Dr. Dörpfeld, to a certain extent), by sufficient openings of an hypæthral nature—call them skylights—but without (as I have already described in reference to another temple) breaking the ridge of the roof—mere openings between a certain number of tiles, twelve or so perhaps, which would not have impaired the general aspect of the temple—the roof being flat as it is.

Mr. R. PHENÉ SPIERS [*F.*].—Sir, another question. I notice that Mr. Penrose adheres, all the way through, very distinctly to the assumption that the line of the roof was not broken; but it must have been broken when the temple was built, because the whole of the centre of the naos was, according to Vitruvius, open to the sky.

Mr. PENROSE [*F.*].—In a case like the Temple of Jupiter Olympius, before it was finished, of course it was. Rayet and Thomas have shown that in the great temple of Branchidæ there were no foundations for the interior columns, and nothing but exterior walls. Therefore, that temple, which was a very late one, doubtless never had its roof put on. It was an enormous span—60 feet, at least—between the walls, and it would have been very difficult, and they probably hesitated till they could not do it at all. But the temple at Athens is not enormous—it is about 48 feet in breadth. [Mr. SPIERS.—But your objection is to the breaking of the ridge-line.] Yes; I hold it is not at all necessary that the ridge-line should have been broken. [Mr. SPIERS.—This seems to invoke a new question altogether. It seems distinctly, from the description here, that it was the custom not to cover over the naos, and therefore there must have been a break in the roof.] In the case of one or two temples it must have been broken. [Mr. SPIERS.—With every decastyle temple that was ever built, it must always have had an open space in the centre.] There is only one decastyle temple known—or, at any rate, not

more than two, if the Temple of Juno at Samos was decastyle, as has been supposed. [Mr. SPIERS.—But a great number are mentioned.] Vitruvius had not seen even one.

Mr. WILLIAM KIDNER [*F.*].—Sir, I would suggest that people in this gloomy country have very little idea how much light can be let into a building through a small aperture. In the tropics in the very hot weather the trouble is to keep the light out. The servants are directed to close the shutters, and although it may seem dark at first, one very soon finds there is light enough after being in the room two or three minutes.

The PRESIDENT.—This is one of those subjects in respect to which no amount of discussion will ever lead to a definite conclusion. (Laughter.) Perhaps it is well that this is so, because, if we could arrive at a conclusion, we should lose one of the most interesting subjects of speculative inquiry. I have much pleasure in putting the vote of thanks to Dr. Dörpfeld for his interesting communication, and to Professor Aitchison for his kindness in reading it.

Professor AITCHISON [*F.*].—Gentlemen, I omitted some things from my former remarks, but I am afraid they will not throw much light on the subject. Mr. Papworth was right when he said Byzes of Naxos made the first marble tiles. It was he who made the Pentelic tiles, and you will find the passage in Pausanias (lib. v. cap. 10). Mr. Stannus made some remarks on the definition of hypæthral temples. I will read the description of them from Vitruvius:—"From that which is "established, when buildings are dedicated to "Jove, to lightning, or to the heavens, or to the "sun or to the moon in the open air and hy-"pæthral. For of these deities we see both the "appearance and the works when we are in the "open shining face of nature" (*Vitruvius*, lib. i, cap. 2, par. 5). "The Hypæthros is indeed de-"castyle in the pronaos and porticum: it has all "the rest like the dipteros, but in the inside parts "it has double columns in height, distant from "the walls, for a passage like the portico of peri-"styles. The middle, however, is in the open air "without a roof, the access of the folding doors is "from either side in the pronaos and porticum. "Of this, however, there is no example at Rome, "but an octastyle at Athens, and in the Olympian "temple" (*Vitruvius*, lib. 3, cap. iii. par. 8). The latest editors, it is said, omit the last "and." The Temple of Jupiter Olympius at Athens was built by the Roman architect, Cossutius, for and at the expense of the king Antiochus Epiphanes, who died in 164 B.C., but this temple was never finished by him. When Sulla took Athens, Pliny says he took the columns to Rome, and used them for the Temple of Jupiter Capitolinus, and these are supposed to have been the internal columns. Therefore that gets rid of the two storeys of the column that Vitruvius speaks of. Vitruvius is supposed to have been born the year Sulla died. Augustus held a conclave of kings to try and get the temple finished, but it was not done, and it was not till the magnificent Hadrian came to the throne that the temple was finished, and then he would naturally finish it after the Roman manner. Therefore Mr. Penrose, when he shows it with one row of columns, appears to me to show it correctly. This theory of Mr. Penrose seems to be a most reasonable one; but this must be borne in mind, that Vitruvius knew nothing about it; in his day the temple was not roofed. Vitruvius died, it is supposed, early in the reign of Augustus, and this temple was not finished till Hadrian's time. There is very little doubt that many of the hypæthral temples that Vitruvius had heard of were, as Mr. Penrose has said, temples that were intended to be roofed but were not, for want of funds, including that one of Apollo Didymaus at Miletus. I fear that we cannot as yet decide the question of hypæthral temples. I know I read Pausanias most carefully through—which is no small task, for he is one of the writers who stray, and who, as Addison said of Montaigne, "should "be put in the pound for straying." You never know, when you are reading Pausanias, whether you are at Athens at the time he was there, or at some other place, in the time of the Trojan War. I know I could not make out whether the things Pausanias saw in the temples were seen by daylight or by lamplight; but still he does give a most distinct and minute account of the sculpture, and of paintings on the walls—and if it were nearly dark he could not have seen them. I am sure we ought to thank Dr. Dörpfeld for his valuable contribution to this obscure and much-vexed question; to Mr. Penrose for coming here from Wimbledon and giving us the advantage of his professional erudition; and to Mr. Falkener for his remarks and beautiful drawing. (Applause.)

MINUTES. IV.

At the Fourth General Meeting (Ordinary) of the Session, held on Monday, the 19th inst., at 8 p.m., Mr. J. Macvicar Anderson, *President*, in the Chair, with 28 Fellows (including 10 members of the Council), 18 Associates (including 1 member of the Council), 1 Hon. Associate, and several visitors, the Minutes of the Third Ordinary General Meeting, held on Monday, the 5th inst. [see p. 92 *ante*], were taken as read and signed as correct.

The following candidates for membership, whose nomination had been previously approved by the Council, were recommended for admission:—As FELLOWS [F.R.I.B.A.], Alexander Ross (Inverness), William Arthur Heazell (Nottingham), James Henry La Trobe [*A.*] (Bristol), Silvanus Trevail (Truro); As ASSOCIATES [A.R.I.B.A.], William Henry Burt, John Melville Keith, Arthur Heron Ryan-Tenison, William Henry Ward, Percy Leslie Waterhouse, M.A. Cantab. (late of Tasmania), Theophilus Arthur Allen, William Nicholson Cumming (Edinburgh), John James Cresswell (Grimsby), Harold Brakspear (Corsham, Wiltshire); As HON. ASSOCIATE, Thomas Henry Wyatt.

The following Associate and Hon. Associate attending for the first time since their election

were formally admitted, and signed the Registers of Associates and Hon. Associates respectively, namely—Alfred C. Houston (*Ashpitel Prizeman* 1892), and Alexander Stuart Murray, LL.D., F.S.A.

Having reference to the list of defaulters under By-law 20, the President made the following statement:—It is my duty to announce that, by a Resolution of the Council passed under the provisions of By-law 23, the following Fellows and Associates have, in accordance with the terms of By-law 20, ceased to be members of the Royal Institute, namely—Fellows (2): Ernest Henry Bayer, of Grenfell Street, Adelaide; William James Martin, late of Chili. Associates (4): Edward Charles Henry Blake, of Mutual Life Building, George and Wynyard Streets, Sydney; John Mansfield Ferguson, of 55, Chancery Lane, W.C.; George Edmund Stanley Langford, late of 12, Oxberry Avenue, Fulham, S.W.; and Ernest George Stead, of Adelaide Street, Blackpool.

With reference to the recommendation of the Council to admit to alliance The Institute of Architects of New South Wales, on the motion of the President, who read the Petition of that Institute for alliance, it was

> Resolved, that the Royal Institute of British Architects do admit to alliance therewith, under the provisions of Section XVII. of the By-laws (Nos. 77–81), the following Society: The Institute of Architects of New South Wales, Australia.

A Paper by Dr. William Dörpfeld, F.S.A., *Hon. Corr. Member* (Athens), on "The Hypæthral "Temple," translated by Mr. Gill, was read by Professor Aitchison, A.R.A. [*F.*].

In the discussion which ensued Mr. F. C. Penrose, M.A. Cantab. [*F.*], Mr. Alexander S. Murray, LL.D., F.S.A. [*H. A.*], Mr. Wyatt Papworth, [*F.*], Mr. R. Phené Spiers, F.S.A. [*F.*], Professor Aitchison, A.R.A. [*F.*], Mr. Hugh Stannus [*F.*], Mr. J. M. Brydon [*F.*], Mr. William Kidner [*F.*], and the President took part. Whereupon it was

> Resolved, that the thanks of the Institute be recorded to Dr. William Dörpfeld, F.S.A., for his Paper on the Hypæthral Temple, and to Professor Aitchison, A.R.A., for having brought it before the Institute.

Professor Aitchison having replied, and acknowledged the compliment on behalf of Dr. Dörpfeld and himself, the Meeting separated at 9.50 p.m.

CHANGES OF ADDRESS.

[See *The R.I.B.A. Kalendar*, 1892–93.]

ASSOCIATES.

1881 Chambers: Frank Job, Glengarriff, 186, Bedford Park, Balham, S.W.

1892 ‡Collinson: George Frederick, 2, Broad Street Buildings, Liverpool Street, E.C.

1891 ‡Conner: William Tait, 9, Scott Street, Garnethill, Glasgow.

1882 Mann: George, 41, Lothair Road, Harringay, N.

1889 ‡Newberry: John Ernest, 5, Callow Street, Chelsea, S.W.

1885 ‡Nisbett: Norman Clayton Hadlow [7, New Court, Carey Street, W.C.] 62, High St., Winchester.

1889 ‡Taylor: William Sneyd, 11, Leinster Road, Rathmines, Dublin.

1887 ‡Wills: Herbert Winkler, Holly Hill, Hampstead, N.W.

HON. CORR. MEMBERS.

1881 Thomas: Albert, Government Architect; Palais de l'Industrie (Porte 4), Champs Elysées, Paris.

1890 Otzen: Johannes, Professor of Architecture, Member of the Royal Academy of Arts of Berlin; Wansee, C. Berlin.

The New Admiralty, Spring Gardens.—Mr. John Hebb [*F.*] sends the following:—Some extremely interesting discoveries were made in excavating for the foundations of the New Admiralty Offices on the site of Old Spring Gardens Terrace, St. James's Park, which are described in a Paper read by Mr. W. J. Lewis Abbott, F.G.S., at the Geologists' Association, and is printed in the proceedings of the Association for August and November last. The excavation was about one hundred yards long by fifty yards wide, and about forty feet in depth. The bottom was London clay, which falls to the south but still more to the south-east, so that the district is naturally drained along this surface; the waters are, however, to some extent held back by a peat bed originating the springs which gave rise to the name of Spring Gardens. The London clay was quite black when wet, and in no instance showed the slightest sign of oxidation or staining, even when overlaid by highly ferruginous gravels. A large number of fossils were discovered in the clay, including the leg bone of a bird about the size of a heron, which has been identified as *Prohero-dius Oweni*. On the London clay rested a layer of boulders, mostly flints, some measuring 18 inches by 12 or 14 inches, quite undecomposed and unworn. Towards the south-east end the London clay was overlaid by an extremely fine drab micaceous sand full of the casts of seeds, mosses, and marine shells. At the north end a bed of highly ferruginous gravel followed the London clay, with a heavy subangular flint gravel at its base mixed with fossils and remnants of the southern drift. Among the latter were flints which had been used by man of a palæolithic type. Remains were also found of the primæval ox, deer, elephant, horse, hippopotamus, rhinoceros, and a small microtus. On these gravels were deposited some two or more feet of sand, and while this deposit was in progress the back water became closed, and a vegetation sprang up on the dry land surface, which also supported a magnificent land fauna, both molluscan and mammalian. After this bed had acquired a thickness of between three and four feet the waters rose once more just over the bank and deposited on this land surface a fine marl of a bright buff colour, in which was found a portion of the shell of a turtle. About three feet from the peat bed already referred to, were found a Roman coin and fragments of Samian pottery, while higher up in the stony clay were potsherds of pilgrim bottles, bellarmine bottles, old blue porcelain, and innumerable articles of the same date.

Erratum.—On page 70 of the last number of *The R.I.B.A. Journal* (No. 4), third column, line 25 from the top, "Messrs. Berney* and Son*" should be read "Messrs. Berney* & Son," the "Son," Mr. Henry Berney, being an Associate of the Institute.

No. 9, Conduit Street, Hanover Square, London, W.

SOMERSET HOUSE. In the *Journal* for 24th ult. [p. 59 *ante*] was inserted a notice of the Manuscript "Ledgers" of the erection of The Horse Guards. These had been presented by Mr. W. W. Pocock, who at the same time forwarded a nearly complete set of the Manuscript Ledgers concerning the erection of Somerset House, still regarded as one of the best buildings in England. All these papers were given to Mr. Pocock some forty years since, by Mr. Kidd, brother of the then Professor Kidd, of Oxford. Mr. Pocock's father stated that Mr. Kidd was *a* or *the* favourite pupil of Sir W. Chambers, who gave to him the above papers with many others, and his travelling case of instruments, which Mr. Pocock still retains. Mr. Kidd I found once described as a nephew of Robert Browne, who was a pupil, assistant or clerk, and an executor of Sir William; he was also a Clerk of the Works in the Office of Works as constituted after Burke's Reform Bill of July 1782. These papers were described as duplicates (some are inscribed "Copy") kept by Sir William in his own office for reference. It was the notice of the "Letters of Sir W. Chambers" which have appeared in the *Journal* * that induced Mr. Pocock to present these "Ledgers" to the Institute. As I have previously observed, such records as these are rarely to be found; they are most instructive as to the course of erection (in this case of the Embankment first and the Strand portion), the method of carrying on the works, of the prices paid for work done by "measure and value," and of the tradespeople employed, many of whom continued throughout, and among whom were some women. The accounts are receipted by their signatures, for Sir William appears to have been paymaster, receiving funds in small amounts as he could get them, and paying when the accounts were made up some few years afterwards. His percentage is appended to each half-year's account; and the later ones are signed as "Examined "and allowed," first by J. Paine, and continued by Geo. Dance, on behalf, perhaps, of the Treasury. There are other signatures of officials, as Whitshed Keene, the Surveyor-General who succeeded Worsley for a short time, Sir R. Taylor, Stephen Wright, T. Sandby, J. Adam, J. Yenn, besides those of the tradespeople, many of whom are deservedly remembered, some being the forefathers of persons and firms still existing.

It may be premised that an Act of Parliament was passed in the fifteenth year of George III. (1774–75) for settling Buckingham House, with the appurtenances, in St. James's Park, upon the Queen in lieu of Somerset House, &c. Mr. Thomas Hardwick, in his *Memoir of Sir William Chambers* (himself one of his numerous pupils), writes:—

> In or about the year 1775, upon the resignation or demise of Mr. [William] Robinson [Secretary] of the Office of Works,† who had prepared designs for the public buildings, then in agitation at Somerset House, in a plain substantial style, but with little or no pretensions to decorative architecture, Sir William Chambers was selected by the Government to make entirely new designs; these were approved, and being ordered to be carried into execution, the first stone was laid in 1776. How he

* Vol. VIII. N.S. 371, 393.

† The quarrel between Robinson and Sir William is explained in letters from the *Letter Book*, printed in *The R.I.B.A. Journal*, Vol. VIII. N.S. pp. 395–396, on the subject of the design and control of the works at Somerset House.

succeeded in this great undertaking the Publick have long since judged. The pains he took to instruct the decorative artists and artificers who were employed by him in the execution of his designs effected a change in this branch of architecture equally remote from the unmeaning forms of the preceding age, and the perhaps too delicate and lace-like designs of an ingenious contemporary architect.

The names of the tradespeople are here given at first *in extenso* from the first Book, and then only any new ones that occur: short descriptions of the works done so as to form an idea of how they progress, also of the customs, and some prices. The amounts of each Book also afford evidence of the progress of the works, which greatly varied each year.

No. 1 Book, Lady Day quarter 1776.

John Groves, bricklayer.
Henry and Richard Holland, bricklayers.
James Filewood, carpenter.
John Devall, mason.
Willm Meredith, pavior.
Will. Evans, painter.
Robert Starke, paperhanger.
Thomas Tubb, sawyer.
Thomas Robinson, executor to William Robinson esq. late Secretary to the Board of Works £315 for surveying the ground, various plans and estimates for new offices, embankment, &c.
W^m^ Martin, locksmith.
John and William Wilson: Memel timber for piling.
William Nelson, pile driver.
Robert Vincent, scale maker.
John Yenn, clerk of the works, £50.
Robert Browne „ £50.

Total cost of the works £2,056. 16*s*. 6¼*d*.

No. 2. Michaelmas quarter 1776.

Robert Smith & Co. masons.
Five publicans were paid for beer allowed the workmen for working tide work.

No. 3. The year 1777.

John Gilliam, mason.
Thos. Clark, plaisterer.
Joseph Wilton, statuary; also Joseph Nollekens, and Agostino Carlini.
Nathaniel Goldsmith, models of walls and roofs for the Exhibition room of Royal Academy.
Sef^n^ Alken, carver.
Thomas Clarke, salary for looking after the work, taking care of the stores, &c.
Richard Ripley, examining and casting the accounts.
Thomas Fülling, for comptrolling the accounts.

From the commencement January 1776 to Mids^r^. 1777 the expenditure was £23,275. 1*s*. 8½*d*.

No. 4. Christmas 1777 to Mids^r^. 1778.

Richard Lawrence, carver.
Francis Sutton, pump maker.
John Westcott, slater.
John Robinson of the Treasury Chambers, 15 July 1778.
Samuel Saxon, assistant clerk.

No. 5. Mids^r^. 1778 to Christmas 1778.

John Cheere, figure maker.
Governor and Company of the Mines Royal, for copper to cover the top and sides of the lantern and the flats over the Exhibition room of the Royal Academy, at 11*d*. per lb.
Frederick Jury, for laying on copper, &c.
William Kinman & Co. for two iron skylights over the staircases.
John Bacon, statuary.

A Book missing.

No. 6. Mids. 1779 to Christmas 1779. Samuel Wyatt, carpenter.

At the end of this account occurs the first payment to the architect, thus:—"To 2½ per cent. on the amount of the Bills passed for works done under his direction "at the new offices at Somerset House and brought to account in the years 1776, "1777, and 1778, amounting to £53,122. 10*s*. 2½*d*. = £1,345. 11*s*. 3*d*. Ditto in the "year 1779 amounting to £27,838. 14*s*. 9*d*. = £695. 19*s*. 4¼*d*." These accounts were "examined and allowed the 18th day of November 1782, (signed) James Paine."

It might prove an interesting bit of gossip to know how much the architect received, so these payments will be followed up. It must be remembered he was receiving a salary as Comptroller, and then Surveyor-General of the Royal Works.

No. 7. Christmas 1779 to Mids. 1780.

William Pilton, wireworker, to bookcases in the Royal Academy Library, 243 feet 3 inches cost £19. 5*s*. 10½*d*.

Edward Watson, for ornaments.

Sir Joshua Reynolds, Knight, for a picture painted in the library ceiling of the Royal Academy 30 guineas.

Angelica Kauffman, four pictures in the ceiling of the Lecture room, £100.

John Baptist Cipriani, painting a freize 20 feet long, 5 feet 6 inches high for the great staircase (as detailed) "in chiaro-oscuro," £105. A smaller freize for ditto, £42. Four historical pictures in colours in the cove of the Royal Academy Library, each £31. 10*s*. = £126, making a total of £273.

Benjamin West, painting five pictures for the ceiling of the Lecture room to the R.A. £125.

Biagio Rebecca, painting four large heads in colours and eight small ones in chiaro oscuro for the ceiling £10.

J. F. Rigaud, a semi circular painting in chiaro oscuro over the door in the anti Exhibition room £36. 15*s*. Two bas reliefs for the same room £21.

Richard and John Cobbett, glaziers.

W. C.'s percentage on £17,394. 12*s*. 2¾*d*. = £434. 17*s*. 3½*d*.

No. 8. Mids. 1780 to Christmas 1780.

James Arrow, joiner; also Willm. Greenell, George Neale and Nath[l]. Goldsmith.

Thomas Collins, plaisterer; at R. A.; west wing, the vestibule, and the Royal Society's meeting room.

Executors of Thomas Clark, plaisterer (Richard Ripley).

Charles Catton, painter; also William Evans.

Richard Lawrence, carver, to Exhibition room,&c.

Seff[n]. Alken, carver, to Royal Society.

Joseph Wilton, statuary, chimney pieces, £1097. 3*s*. 2¾*d*.

William Meredith, paviour.

William Bent, ironmonger; also Edward Johns.

Robert Stark, paperhanger.

George Seddon, cabinet maker, Royal Society's apartments, &c.

Gideon Dare, tinworker.

Benjamin Burt, chimney doctor, who charges for "Rectifying 6 chimnies in the Strand building; to self, man and labourer 8½ days; 27 hods mortar; 10 hods of lime and hair; 520 stocks; 150 plain tiles;" costing £7. 8*s*.

Henry Lay, frame maker, for portraits, &c., £173. 6*s*. 9*d*. W. C.'s percentage on £17,169. 13*s*. 2¼*d*. = £429. 4*s*. 10*d*.

No. 9. Christmas 1780 to Mids. 1781.

W. C.'s percentage on £17,833. 11*s*. 11*d*. = £445. 16*s*. 9½*d*.

No. 10. Mids. 1781 to Christmas 1781.

John Groves, bricklayer, charged 3*s*. 4*d*. per day, Mids. to Michs.

labourer, charged 2*s*. 2*d*. per day, Mids. to Michs. and 2*s*. 0*d*. Mich. to Xmas.

Edward Gray, bricklayer, in main building next the river, from the top of the girders of the principal floor to the top of the girders of the attic floor.

(Total cost in 1782, £36,747. 12*s*. 5½*d*.)

Samuel Wyatt, carpenter, main building from the west wall of the centre room westward to the north end of the south break in the west return.

William Palmer, smith.

John Westcott, slater.

Willey Reveley, assistant clerk, 26 weeks attendance @ 21*s*.

W. C.'s percentage on £24,502. 4*s*. 0¾*d*. = £612. 11*s*. 1¼*d*.

No. 11. Christmas 1781 to Mids. 1782.

W. C.'s per centage on £11,991. 8*s*. 0¾*d*. = £299. 15*s*. 8½*d*.

This account was "Examined and allowed this 27th day of November 1783," James Paine. In each subsequent account he charges £42, and four guineas for clerk's attendance.

No. 12. Mids. 1782 to Christmas 1782.

Devall and (Holroyd, executor), plumber.

Mines Royal Company. Copper to cover the center part of the main building, 11*d*. per lb.

John Yenn, "paid for dinners at the Adelphi and "at Holywells Coffee house, for the examining of the accounts and clerks during the "time they were setting on the examination of "the Bills for 1779, 1780, and 1781 = £14. "1*s*. 0*d*."

W. C.'s percentage on £12,569. 16*s*. 0*d*. = £314. 4*s*. 10¾*d*.

No. 13. Christmas 1782 to Mids. 1783.

W. C.'s percentage on £21,225. 5*s*. 9¾*d*. = £530. 12*s*. 7½*d*.

No. 14. Mids. 1783 to Christmas 1783.

James Arrow, joiner; also William Greenell.

Francis Sutton, pump maker.

Joseph Wilton, statuary, chimneypieces on principal and attic floors of the west wing to the Strand Building.

Nathaniel Lindegren, assistant clerk.

W. C.'s percentage on £7,679. 19*s*. 10½*d*. = £191. 19*s*. 11¾*d*.

No. 15. Christmas 1783 to Mids. 1784.

George Neale, joiner, additions to Royal Society library.
William Pilton, wireworker; additions ditto
John Yenn, "Holiland for dinners to examiners "while passing the accounts of 1783, "£3. 4*s*. 0*d*."
W. C.'s percentage on £9,966. 5*s*. 3½*d*. = £249. 3*s*. 1½*d*.

No. 16. Mids. 1784 to Christmas 1784.

Charles and Martin Cole, carpenters.
John West and William Kelsey, joiners.
Thomas Collins and John Papworth, plaisterers, to garret, attic, and principal stories of the main building fronting the river Thames.
Richard and John Cobbett, glaziers, crown glass in sashes, 1*s*. 7*d*. per foot, extra size 1*s*. 8*d*.
Frederic Jury, coppersmith; covering the dome.
Richard Lawrence, carver; also Richard Rathbone.
Richard Hayward, statuary; also Thomas Banks.
W. C.'s percentage on £11,101. 19*s*. 5¾*d*. = £277. 10*s*. 11½*d*.

No. 17. Christmas 1784 to Mids. 1785. "Copy of the Book delivered to Com- "missioners of Accounts."

Justin Vulliamy, clockmaker.
W. C.'s percentage on £10,734. 11*s*. 0¾*d*. = £268. 7*s*. 3¼*d*.

No. 18. Mids. 1785 to Christmas 1785.

George Seddon and Son, cabinet makers. Fitting up the Navy office, £5,293. 5*s*. 0¾*d*.
Thomas Collins and John Papworth, plaisterers, on ground floor, basement floor, and cellar story to the main building to the river Thames; and whiting to that part of the said Building which comprehends the Navy Office, £2,212. 16*s*. 11¼*d*.
William Evans, painter.
W. C.'s percentage on £18,530. 15*s*. 4¾*d*. = £463. 5*s*. 4½*d*., and on the Cabinet work = £132. 6*s*. 7½*d*.

No. 19. Christmas 1785 to Mids. 1786.

Joseph Rose, plaisterer, in the East return building, from the return of the main Building to the north side of the loggia or centre break.
Thomas Palmer, plaisterer.
John Maskell, smith, railing to staircase.
Johnstone and Young, paperhangers.
Richard Hayward, statuary, chimney pieces in west return Building.
W. C.'s percentage on £15,029. 15*s*. 3½*d*. = £375. 10*s*. 4½*d*. This account was examined by George Dance, 13th May 1789, after the dismissal of J. Paine.

No. 20. Mids. 1786 to Christmas 1786.

R. Lawrence, and R. Rathbone, carvers; and J. Wilton, statuary for chimneypieces.
Thomas Simpson, engine maker
Edward Johns, ironmonger.
W. C.'s percentage on £19,356. 15*s*. 0¾*d*. = £483. 18*s*. 4½*d*.

No. 21. Christmas 1786 to Mids. 1787.

Ann Tyson and sons, slaters.
E. Coade, artificial stone vases.
George Adams, optician, large wind dial, &c. £46.
W. C.'s percentage on £12,700. 0*s*. 8¾*d*. = £317. 10*s*.

No. 22. Mids. 1787 to Christmas 1787 (Copy).

Elizabeth Betts, painter; also William Evans.
William Meredith & son, paviers, in great square.
Johnston & Young, paperhangers.
David Watson and son, cabinet makers; Board room, &c., £1,449. 7*s*. 5*d*.
W. C.'s percentage on £17,293. 1*s*. 11*d*. = £432. 6*s*. 6½*d*.

The Ledger for 1788 is missing.

No. 23. Christmas 1788 to Mids. 1789 (Copy).

Charles Catton, painter.
Thomas Collins and John Papworth, plaisterers, whole of plasterers work to the comptroller of the Navy's House, and finishing the Treasurer's house and the embankment.
W. C.'s percentage on £4,210. 14*s*. 3½*d*. = £105. 5*s*. 4½*d*.

No. 24. Mids. 1789 to Christmas 1789.

John Groves and son, bricklayers, foundations to the continuation of the embankment.
William Evans, painter, Treasurer of the Navy's house.
Bowers and Co., paperhangers.
John Moor, brickmaker, 100,000 Suffolk white bricks delivered, @ £2. 15*s*. 0*d*. = £275. 0*s*. 0*d*.
George Meredith and Assistants measuring all the works of Fittings in offices, making out abstracts, and settling the bills, &c. £189. 2*s*. 0*d*.
W. C.'s percentage on £26,937. 11*s*. 8½*d*. = £673. 8*s*. 9¼*d*.

No. 25. The year 1790. W. C.'s percentage on £11,208. 17*s.* 8*d.* = £280. 4*s.* 5¼*d.*

No. 26. The year 1791. W. C.'s percentage on £12,230. 16*s.* 2*d.* = £305. 15*s.* 4¼*d.*

No. 27. The year 1792 (Copy).

Additional apartments were provided for the Keeper of the Royal Academy.

Joseph Trollope, paperhanger.

William Rose, assistant clerk @ 21*s.* per week.

W. C.'s percentage on £9,598. 5*s.* 10*d.* = £239. 19*s.* 1¾*d.*

No. 28. The year 1793.

John Gilliam and Thomas Wood, masons.

Martha Palmer, successor to William Palmer, smith.

Seddon, Sons and Co.

William Rose and assistants ¾ per cent. on £1,033. 1*s.* 9½*d.* for measuring the works (Fittings), abstracting the same, making out the bills, &c., £7. 14*s.* 11¼*d.*

W. C.'s percentage on £8,441. 10*s.* 3¾*d.* = £211. 0*s.* 9*d.*

"To Sir William Chambers for his care of the "Offices and Buildings after they were finished "and delivered up to their respective oc- "cupiers. Attendance to direct alterations "and repairs. Annual and occasional surveys "and attendance upon the call of the Com- "missioners, &c., from December 1780 up to "Christmas 1793, upon an average at per "annum £60 = £780."

8th January 1801, Robert Browne, one of the Executors of Sir W. C., stated on oath that the sum of £14,794. 16*s.* 4*d.* was due to Sir W. C. at the close of 1793.

No. 29. The year 1794 (Copy).

W. C.'s percentage on £8,952. 7*s.* 7*d.* = £223. 16*s.* 2¼*d.* and £60 for his "Care," &c.

No. 30. Christmas 1794 to Mids. 1795.

John Devall, mason, Removing the stonework of the Western Gateway and depositing it in the arches under the East street, watching the building, &c. £45. 3*s.* 7½*d.*

W. C.'s percentage on £1,411. 1*s.* 9½*d.* = £35. 5*s.* 6½*d.*, and £30 for "Care."

"Sir W. C. his Allowance of 2½ per cent. Commission on the sum of £10,301. 16*s.* 0*d.*; for measur- "ing and selling old materials, £257. 10*s.* 6*d.*; Sir W. C. his charge for Surveys, Sketches, Designs, "Finished Drawings, Correspondence, Meetings with Officers, &c., to settle the plans of the Savoy "Barracks for 3,000 men, £420; and Sir W. C. his charge for Duplicate fair Plans of Offices with "description of Fixtures, &c., £300."

Sir William Chambers died on 8th March 1796. Some papers at the end of the last Book appear to show that the executors were surcharged about £1,000 for various items and for interest. There is no complete summary of accounts; the sums named above amount to about £445,025, allowing an amount for the missing book; and the percentage to about £11,127, and £1,847. 10*s.* 6*d.* for his additional charges. The charges by Paine and Dance are not included. Although some of the decorative work has been noticed, all the carved work executed by the first "statuaries" of the period is omitted for want of space; these may appear at a future time or elsewhere, being equally worthy of exhumation from these somewhat cumbrous volumes, as illustrative of the art of sculpture in England.

Any one who may feel further interested in Somerset House should inspect the original drawings deposited in Sir John Soane's museum. There are many drawings, commencing from the early plans of academical character, developed, through others, to the simple quadrangular arrangement as executed; the various plans for the accommodation of each of the numerous departments of Government; numerous details of construction and decoration; designs for chimney-pieces, doors, windows, vases, &c.; all showing his minute and elaborate care in such matters expressed in drawings as well as in writing. The drawings are chiefly in outline, a few being shaded in Indian ink; about a dozen are coloured, one being a bay of the elevation of the Strand façade, with the shadows of the details carefully developed.

Wyatt Papworth.

REVIEWS. V.

(9.)

THE 1889 EXHIBITION IN PARIS.

Exposition Universelle Internationale, 1889, *Paris' Rapport Général, par M. Alfred Picard, Inspecteur Général des Ponts et Chaussées, Président de section au Conseil d'État. Tome premier: Historique des expositions universelles—Préliminaires de l'Exposition universelle de* 1889. *Tome deuxième: Travaux de l'Exposition, &c. Tome troisième: Exploitation, service divers, régime financier et bilan, &c. Tome quatrième: Les Beaux-arts, l'éducation, l'enseignement, les arts libéraux (groupes* 1 *et* 2, *&c.). Tome cinquième: Le mobilier, les tissus et les vêtements (groupes* 3 *et* 4, *&c.). Tome sixième: Les industries extractives, les produits bruts et ouvrés, l'outillage et les procédés des industries mécaniques (groupes* 5 *et* 6, *&c.). Tome septième: L'outillage &c. (suite), l'électricité (groupe* 6). *Tome huitième: Les produits alimentaires—l'agriculture, l'aquiculture et l'horticulture (groupes* 7, 8 *et* 9, *&c.). Tome neuvième: L'économie sociale—l'exposition rétrospective du travail et des sciences anthropologiques—résumé et conclusions. Pièces annexes (tome dixième): Actes officiels—Tableaux statistiques et financiers.* [*Ministère du Commerce, de l'Industrie et des Colonies. grand* 8*o. Paris*, 1891–2.]

Were I to omit to describe this Report, which runs to ten bulky volumes, as monumental, I should be doing less than my duty. A monument it is, not only of industrious compilation in its editor, but as the record of an exhibition which in many aspects offers permanently valuable material for study. It is specially interesting to those who, like the present writer, failed to make an opportunity for laying up a store of personal impressions, and it leaves one with the conviction, not only that the Exhibition was quite the best thing of the sort ever done, but that the French people have special gifts, and Paris has special attributes, which assure their lasting superiority in this species of hospitality in which the *amour propre* of the nation is closely involved. Many of the same desirable qualities are to be found in the Viennese, more in the Americans, and Chicago may dethrone Paris for a time—but a new country cannot fail to be weak, just where much of the strength of France lies.

The first of the two volumes * with which we are at present concerned deals with the buildings, and here national pride stepped in to some purpose, and, in the mere provision of house-room, prompted a boldness of conception—happily seconded by skill in the carrying out—which practically assured the success of the undertaking from the start. A good deal of space is devoted to the Eiffel Tower. "Happy the man who has never heard of it!" one might have said a few years ago, when its name haunted one till a wish that its talented sponsor might, like another Vanbrugh, be buried under it, would have been excusable. But all that is past now, and it is possible to consider it without prejudice. In its way it has been an undeniable success; it has allowed no one to ignore it, and has served its purpose as a "symbol of industrial "power" better than an erection more reasonable and less useless would have done. I say "less "useless" because the claim that it is justified by its value as a station for meteorological observations is rather absurd. As François Coppée said:

> À ces hauteurs vertigineuses
> Le savant voit-il mieux les chocs
> Des mondes et des nébuleuses?
> —Non pas; on y prendra des bocks.

It is a big work in its way—made up of twelve thousand pieces, as we are told, each of which had to be separately detailed, and occupying a staff of forty designers and calculators for the space of two years—but the protest with which it was met by the literary and artistic world was a very intelligible one. The protest itself, and M. Lochroy's somewhat flippant rejoinder, are instructive reading for those who do not realise how futile it is to summon Philistinism to fall on its knees in the name of art, and allow us to augur but a very small measure of success for those gentlemen who are now tilting with bodkins against the Advertisement Colossus. A more legitimate source of pride is the great Machinery Hall, and M. Alfred Picard enters at great, but not too great, length into the whole story of its erection. A hall 1,381 feet long and 490 feet wide, with a central nave 151 feet 6 inches to the ridge and 375 feet wide in the clear without a tie—St. Pancras Station has a span of 238 feet—needs no further description. The bare facts are sufficiently eloquent, but the exhaustive treatise in the Report, which is admirably illustrated, will well repay reading, and the only serious omission, the calculations which guided its designers, is supplied in an article by Mr. Reilly in *The R.I.B.A. Journal* for 6th February 1890 [Vol. VI. N.S. pp. 161–169].

So far as the design goes, it may be noticed that it was originally intended to return the roof of the nave at each end as well as the aisle and its gallery; but constructional difficulties interfered, and probably to the artistic advantage of the fabric, of which the great gable ends form a striking feature. The contract was divided equally between two firms, the Fives-Lille Company and the Société Cail. Nothing could have been more different than the modes of fixing adopted by the two contractors, and probably some interesting questions of the relative advantages of fixing in large or small sections were set at rest, but in an

* Mr. A. E. Street, in this Review, treats mainly of the second and fourth volumes of Mr. President Picard's *Rapport Général*, namely:—that on the works and buildings of the Great Exhibition, which is brilliantly illustrated with views, plans, &c., and that on the Fine Arts. Notices of some of the other volumes will follow in this Journal, during the course of the Session, as circumstances may permit. Meanwhile, it is only just to acknowledge the courtesy of the French Government in presenting two copies of this valuable work to the Institute—one to Mr. Waterhouse, R.A., as its President in 1889, and the other to the Library, the gift to each being inscribed on a page of every volume.

official publication—though human nature crops up now and again in a way to make our more restrained officialism shudder—comparisons would be more than ordinarily odious, and are avoided.

The whole method of fixing is far too large a subject to enter upon here, but the difference lay, as I have said, in the dimensions of the pieces fixed, and in the amount of work done, in the foundry, and on the site, respectively. Briefly, the Fives-Lille Company raised in such large pieces that out of 32,000 rivets only 2,100 were made in position, and each truss took only a week to fix. The Société Cail, on the other hand, took from ten to twelve days over a bay, raising no more than three tons in one piece, and making 20,000 rivets in position. Finally, the total cost being £300,000, the cost per foot cube was something under 4*d*., and each square mètre of support at the ground level carried nearly 325,000 kilos. If the might of labour needed any vindication, it was to be found not less in this grand example of severe utility than in its more showy rival.

One of the most interesting features of the Exhibition to architects lay, no doubt, in the decorative treatment of the ironwork generally, and particularly in that of the domes, and the application to it of different materials, rich and varied in character, and of a relatively inexpensive nature. This was evidently done—I do not speak as an eye-witness—with a completeness never before attempted, and with a gracefulness of fancy particularly French; so much the illustrations tell me. As to the success of the colouring, some of which was daring, at least in its novelty, I can only speak from hearsay; but in declining to be bound by the unwritten code, which allows nothing between a dull monotone and the rawest and most garish tints to the decorator of ironwork, the French artists showed a wisdom which is not to be gainsaid. M. Picard, while alluding to the possibilities which constructional ironwork offers for applied decoration, shows that he is not blind to the decorative qualities which it actually possesses in itself, and deprecates with much reason the denial of artistic character to the forms dictated by constructional exigencies.

Perhaps the widest field for ingenuity and the display of fancy was supplied by those buildings which were of quite ephemeral character, such as that devoted to "Industries Diverses." In this case the somewhat cold aspect which ordinarily marks French architecture was exchanged for an Oriental warmth of colouring. The dome was covered with enamelled tiles in brown and ochre, and surmounted by a figure in zinc; paintings on canvas, parti-coloured brickwork, terra-cotta, woods of various kinds, faïence, zinc, and glass combined to produce a whole which was, in the official phrase, "fairy-"like." There was much masquerading in borrowed plumes, and simulation of the costly and the permanent by the temporary and the cheap, but, as an example of the power for good or ill of modern processes, it was, in its least moral aspect, highly interesting. In the vestibules, the promenades, and above all in the dome, the richest work was massed, and by a happy recognition of the independence which should govern architecture in iron, the light, instead of being admitted by a lantern, or through the drum, was allowed to pour in between the constructional ribs of the dome itself.

Elsewhere, as in the smaller pavilions, more daring flights were taken: M. Formigé followed the Persians in covering a small dome with porcelain tiles; while the architect of the pavilion of Public Works, M. de Dartein, combined straw-coloured, deep brown, red and rose-coloured bricks of ordinary make with enamelled varieties in white, brown, yellow, and turquoise.

Many of the buildings devoted to subjects of less importance or smaller countries might, it must be confessed, have been consigned to oblivion with much advantage to every one, and especially their authors, instead of being gibbeted in a permanent official record. The intellectual activity of the Frenchman is always prone to lead him into riotous design, unless he curbs his fancy to an almost exaggerated purity of style, and some of his foreign brethren were in an evil moment inspired to spread the sailsof their own less-seaworthy craft to the same gale.

The volume on the "Fine Arts" is introduced with an apology for the little conversance of its writer with his subject, and is devoted in a very large measure to a history of general education in France from the time of Julius Cæsar. As for any special connection with this Exhibition as distinguished from any other, it is very much to seek so far as the larger part of the 600 pages is concerned. English art generally is criticised, summed-up, and found wanting in a couple of paragraphs, while our architectural show is dismissed with a pat on the back in precisely three lines. In fact, I think M. Picard devotes more space to some of those foreign sections in which little or nothing was exhibited, than to others in which exhibitors did their best to show a bold front. He diverges into guesses as to the reasons of this "thusness." Is their superiority so well established that it needs no showing, or do they not rather assume this independent attitude to hoodwink an unsuspecting official because they mistrust their powers?

The exhibition, in celebrating the great upheaval of a hundred years previous, both gained strength and lost it. Whether in the sphere of art or in that of education generally the revolutionary epoch offers us a series of picturesque incidents and movements which rivet the reader's attention to a degree which the results achieved perhaps hardly justify. How strangely mixed the ingredients which went to the making of that great bubbling, seething *pot-au-feu*, the French Revolution! an enlightenment which threw open the Salon to all comers, French or foreign, as was done in 1791; a bigoted wrong-headedness which called for a holocaust of all the works by artists who had left the country as a sacrifice to the shades of dead patriots! How absurd, yet how nearly bordering on reason, the creation by David of the Salon jury, to the composition of which went not only artists, or, perhaps I should say, not only

philosophers, poets, mathematicians, men of science, but a tailor or a bootmaker and an artist or two! What unmixed wisdom, on the other hand, that which prompted the dedication of the Louvre as a public gallery and the inauguration of departmental museums, which date from the same year! When discontent against the institution at Burlington House, because of the want of room for outsiders and the greediness of the members, is in the air, it is well to remember that although, on the throwing open of the Salon, the number of pictures exhibited jumped at once from 794 to 1,791, and in the next year to 2,000, not a trace of new talent was discoverable. It only went to prove, what ought never to be forgotten, that talent will make its own opportunities. The central figure of this period was David; indeed, for forty years he ruled his fellow-artists like a dictator; always classical in his leanings, he gradually deserted Rome for Greece as the source of his inspirations, for, as he said, Rome would have been barbarous without Greece. Like most reformers with a real foundation of good sense, he soon found himself left behind, and the school of Primitives, who burned to destroy every work of art subsequent to the time of Pheidias, did not scruple to label him "Rococo." It is impossible to follow the "Century of French Art" in detail. Ingres succeeded to David as the champion of the Classicists, while the Romanticists ranged themselves under Delacroix. Corot, Rousseau, and Daubigny, who first made Barbizon historical, belong, as it seems, almost to our own day. Later still come Millet and Breton, and then we are face to face with Regnault and his contemporaries. Such a roll of names as the French painting and sculpture of the period present is to be matched nowhere else.

The same period saw the building of the Pantheon, the Madeleine, and later, Ste. Clotilde; while among sculptors, as among painters, the classical feeling, which at one time was so strong, or at least so much in the mode, was gradually exchanged for a manner which inclines to sensuousness, and is sometimes too clever to be statuesque.

Of the long survey of education it is impossible to give even the barest outline. Marcus Aurelius, Charlemagne, Remi of Reims, who opened the first public school in Paris in 908—these are the names most closely associated with the establishment of educational machinery in France during the first ten centuries of the Christian era, and from the time of the last named teaching may be said to have become not only a recognised career, but even a stepping-stone, as in the cases of Adrian IV., Innocent III. and others, from the most humble to the highest place. From the earliest days the rhetoricians had found a fertile soil in the acute intellects of the people of Gaul. Their forensic abilities, their love for the subtleties of argument, soon showed themselves, and we find that the actual creation of the other faculties in the University of Paris was mainly due to the exaggerated addiction to argument which marked the theological professors appointed by the Pope, and a general desire for some means of suppressing them. This antagonism was no passing feeling, and resulted in a gradual estrangement of the University from the Pope, till at the beginning of the fourteenth century it was in close touch with the civil authorities.

The setting-up of the first printing-press in France in 1470 was the beginning of a new order of things: mental gymnastics, wild and often childish speculations, gave way to a better-regulated system of study, the formation of a more compact body of established knowledge, and the growth of a more scientific attitude of mind. It was no longer the day of an Abelard confronting the deepest controversies with airy audacity. Erasmus epitomised the new spirit of the age when he said, "When I have money, I shall buy "Greek books first, and clothes afterwards," and Montaigne first gave the real formula of education when he described it as the "bringing-up of men "so that they *can* do anything, but choose only to "do what is good."

I pass over the days of the Reformation, dark ones for the general cause of education, however warmly Luther himself was inclined to promote it, because the attention of the world of learning was devoted almost exclusively to theological studies; and I pass over the days of Jesuit dominion, constantly broken and as often rearing its head again, when the aim was less to turn out thinkers, than Christians with a sufficient appearance of education to be deceptive. In 1762 appeared Rousseau's "Émile," and the secularisation of education became the universal cry. With the Revolution came a whole crop of vast projects, based on sound reason in many respects and prophetic of much that is familiar to us now, but involving changes so fundamental that, at the moment, they led to little or nothing.

Boissy d'Anglas in 1792 urged the general teaching of design. "It is the school," said representative Portiez, "in which are formed, directly "or indirectly, all the industrial arts." Talleyrand asks the National Assembly for free education for all—in the first degree; Condorcet makes an almost similar appeal to the Legislative Assembly—free education up to such a point as should secure every man his independence. The Convention throws it all aside, and prefers to train up the youth of the country to be not only independent, but, above everything, citizens of a Republic. Meantime, while reports are being printed, and projects growing larger, public instruction is almost at a standstill, and the retrograde step of allowing liberty to individual effort is given under compulsion. In vain the "Direc- "toire" threw every obstacle in the way of private schools, which were regarded as hot-beds of Royalism. They only flourished the more.

The first Empire need not detain us; Napoleon did indeed found an imperial university in Paris, but, on the other hand, he denuded half the universities of Europe of their students. MM. Victor Cousin, Guizot, and Duruy fill the interval till the war of 1870, but it wanted that stimulus to make the spread of enlightenment other than tedious. The result of the war pointed to an obvious rottenness

somewhere, and the friends of education had the whole people at their back when they demanded that the general level of intelligence should be raised. Public attention was turned by M. Jules Simon to the necessity for a greater development of physical powers; history, geography, and modern languages were given a larger space in the field of secondary education. The leading idea, indeed, was to provide remedies for the special weaknesses which the war had brought out. It remained for M. Jules Ferry to accomplish what Jules Simon, and Duruy before him, had desired, and in 1881 primary education was made free, and shortly afterwards obligatory; while a few years later public instruction was put exclusively into the hands of laymen. The tendency in France, in the higher education, just as it is in England, is to the so-called "modern side," and to general culture rather than to a high degree of proficiency in special subjects. Meantime two principles have been evolved, which have what would seem a lasting foundation in their justice and reasonableness. First, the duty of the State to teach; and secondly, the right of the individual to exercise the same function.

A. E. Street.

(10.)

EPIGRAPHIA INDICA.

A Collection of Inscriptions supplementary to The Corpus Inscriptionum Indicarum of the Archæological Survey. Translated by several Oriental scholars. Edited by Jas. Burgess, LL.D., C.I.E., Hon. A.R.I.B.A., M.R.A.S., M.Soc.As. Paris, &c., &c., late Director-General of the Archæological Survey of India. Fo. Calcutta, 1892.

This large and most important work has been published in parts—the first of them appeared as far back as October 1888—eight of which, containing 460 pages, constitute the first volume. This is now finished, and a new Part has already been published as the beginning of the second volume. As these parts came out copies were sent to the Institute; and it is to be hoped that the Government of India, which has always been distinguished for its liberality with the books it has published, will continue its favours in this manner. The assistant editors have been Dr. Hultzsch, Dr. Führer, Henry Cousens, and Alex. Rea, all occupying official positions in the various Survey Departments of India. The special scholarship for epigraphical translation in this work has been represented by such Sanscrit authorities as Professors G. Bühler, Ph.D., LL.D., C.I.E., of Vienna; F. Kielhorn, Ph.D., C.I.E., of Göttingen; and J. Eggeling, Ph.D., of Edinburgh; E. Hultzsch, Ph.D.; and J. F. Fleet, C.I.E., Bo.C.S. These names are a sufficient guarantee for the character of the work. At the Congress of Orientalists lately held in London the very highest praise was awarded to Dr. Burgess for his share in the undertaking as chief editor. No higher praise could be accorded here to Dr. Burgess than this statement of the value attached to his labours by so many of the highest Oriental scholars. A work produced by such an able body of learned savants may be accepted as faithful and perfect as the best Sanscrit scholarship of our day can produce.

The scarcity of historical documents in India gives a special value to all inscriptions which may be discovered. This is owing to the large blanks in the history of that country, and these are now to some extent being filled up, although in most cases in a very limited manner, from inscriptions, copperplate grants, as well as from coins. Of course, from such sources of knowledge little more than the mere names of kings can be arrived at; still, that is something when no other means of light are forthcoming. In addition to these historical and genealogical purposes the inscriptions have at the same time a value in relation to architecture. Many of them are found on temples, and in addition to the name of the founder, the name of the architect, as well as the mason, is at times given. Gardens in connection with a temple, as well as *maths*—a kind of monastery, or place for teaching—are mentioned as being constructed and endowed. There is one important kind of knowledge which can be derived from these inscriptions, and these are dates. The day and the year of the dedication of the temple are given in most cases, and thus the period of a particular style may at times be worked out. A good index, which is luckily given, will facilitate investigations of this kind.

The most of the inscriptions are of a class to which the name "*Prasasti*" is applied; and their principal object appears to be the glorification of the person, as well as his ancestors, who builds and endows the particular temple. In some cases they begin three or four generations before the founder, and record the names and deeds of each person, which are related in the most flowery and magniloquent language, much of which is often ridiculous from its extravagance, but is at times of interest from its peculiar references to the gods of the Hindu Pantheon.

Here and there we are favoured with a slight glimpse of some of the architects; their names, as well as that of their fathers, have been recorded in some of the inscriptions, and generally in very highly-flavoured language. Here is an example from the inscription of Dabhoi, the date of which, according to Professor Bühler, is 1253:—"There "was a mason, called Sâdeva, a store of all good "qualities; from him sprang Vâmadeva, famous "for having built the Temple of the Sun, called "Mûlasthâna. As his son was born he was "called Madana, a scion of [*the race of*] Visva-"karman,* the builder of the wall of [*glorious*] "Vaidyesa, of the extensive temple, of the gates, "of the wings, and of the foundations. The son "of Ahlâdana, called Devâditya, who [*became*] "the firm architect of Vaidyesitri, is famous in the "first rank of masons" (p. 24). Another architect is described in the Pehoa Prasasti as "a man of "Kâmboja descent, the son of Râma, whose "famous name is Achyura, was here the overseer

* Visva Karman, it may be explained, is the Brahminical Hephæstos, his name meaning the "all-"worker."—W. S.

" [*kárayitá*], he who is an image of Dhavantari, " an incarnation of the quintessence of learning, " a friend of the virtuous, and a bee on the lotus " of the heart of his master."* The engravers of the inscriptions are also mentioned in language of the same style. The Deopara inscription of Vijayasena gives an example :—"The Rânaka Sûlapâni, the son of Brihispati, grandson of Mandâsa, " [*and*] great-grandson of Dharma, the crest-jewel " of the guild of Varendra artists, has engraved " this eulogy " (p. 315).

The descriptions of some of the structures are worth quoting to show what the style of architectural criticism was at the period of these Prasastis or panegyrics. They will be found to be more curious than instructive. The Khajuraho inscription supplies a fair illustration of the manner of the authors :—" He erected this charming, splendid home of [Vishnu], the enemy of " the Daityas, which rivals the peaks of the " mountains of snow, the golden pinnacles of " which illumine the sky, [*and*] on which groups " of lotuses are wafted to and fro by multitudes " of banners on high poles; at the sight of which " the inhabitants of heaven, met together on festivals, filled with increasing delight, are struck " with wonder " (p. 134). The following is from the Vadnagar Prasasti, which dates from the middle of the twelfth century; it relates to the construction of a fortified wall round the town. It says :— " This rampart resembles a mountain, since its " foundations go down to the lower world; [*it* " *resembles*] a lover worthy to be praised on " account of his great enjoyments, since it is " worthy of praise on account of its great extent; it resembles the ocean, since it is a " means of [*obtaining*] great prosperity; [*it* " *resembles*] the victory of the foes of the lord " of the Râkshasas, since monkeys' heads peep " forth from it; [*and it resembles*] a company of women who are pleased with their dear " husbands, since it is resplendent with a coping " of bricks " (p. 304). It will be enough to add that the writer of this nonsense styles himself " The Emperor of Poets " (p. 304). It is owing to this extravagant manner of description that there is so little reliable information about the architecture. This is all the more to be regretted, for the period covered by most of the inscriptions is an interesting one in the history of Indian architecture—that is, the time between the collapse of Buddhism and the Mohammedan Conquest. This period includes within it the origin of the Brahminical temples and the style they belong to, which present difficulties that require light thrown on them. Inscriptions may yet be found that will do this, but these Prasastis scarcely encourage the hope.

We know that whitewash or plaster had been used on temples, but these inscriptions seem to show that it was very extensively applied. The Dewal Prasasti of Lalla the Chhinda, of the tenth century, describes a town in the north-west of India that " seems to rival the town of the lord " of immortals, with its gardens resembling Nandana, with its high-topped temples of the gods " that are resplendent with the sprinkling of exceedingly pure whitewash " (p. 82). In the Vadnagar Prasasti, already referred to for its wonderful wall, we have the statement that it was " white with " stucco," thus giving us the particular material that was used. We know that the Buddhists used plaster in their caves, for it still exists with paintings on it. The Buddhist caves of Afghanistan were also plastered, and so were the exteriors of the topes.

The Cintra Prasasti of the reign of Sarangadeva —thirteenth century—informs us that Tripurantaka, a Saiva ascetic, erected at Somanathapattana five temples and dedicated five statues which were placed in the *Antarâlas* of the temples. A footnote from Dr. Burgess explains that an "*Antarala* " is the second *Mandapa* of a temple, between the " *Ardhamandapa* and the shrine." Tripurantaka also erected a *torana* on the space before the northern gate of these five temples, which shows that they were surrounded by a wall. A *torana* was a gate, and we are now familiar with the word as applied to such ornamental gates as were erected at stupas, of which those at Sanchi are well-known examples. Professor Rhys Davids once explained to me that the term " torana " when applied to city gates referred to the structure above the gates rather than to the gateway itself (p. 276). The Jaina inscriptions of Mathura, which are as old as the first and second centuries, mention the erection of a *torana* at that place (p. 390).

The Bhera-Ghat inscription of Alhanadevi records, as Professor Kielhorn, the translator, thus explains—" that Alhanadevi, the widow of the " king Gayakarnadeva, and mother of the " reigning king Narasimhadeva and his younger " brother Jayasimhadeva, founded a Siva temple, " with a *matha* or cloister, a hall of study, " and gardens attached to it; that, probably " for the maintenance of these buildings and " their occupants, she assigned the income from " the two villages of Nâmaündâ, in the Jâulî *pat*- " *talâ*, and of Makarapâtaka, on the right bank " of the Narmadâ in the land adjoining the hills; " and that the management of the whole establishment, thus founded by the queen, was en- " trusted in the first instance to a Pâsupata ascetic, " named Rudrarâsi, of Lâta lineage. The inscrip- " tion also records that all the buildings, &c., afore- " said, at one of which the inscription may be " supposed to have been put up, were designed or " executed by the architect Pithe."

In the Jabalpur copperplate of Yasahkarnadeva, as well as in the Bhera-Ghat inscription, there occurs a phrase that is deserving of some note. In the first of these it is declared of

* P. 250. Professor Bühler in a foot-note expresses the probability, based on the reference to Dhanvantari, the Indian Asklepios, that this man " was a doctor as well as an architect." This combination of professions, which recalls the architects of the Middle Ages of Europe, finds another illustration in the Ratnapur inscription of Prithvideva, where a couple of architects who built a temple of Siva are " two crest-jewels of sculptors " (p. 52).—W. S.

the king Karnadeva that in Kasi, or Benares, "there is a temple [*erected by him*], Karna's "*Meru* [so lofty], that the wind of the flags "which wave from its golden spires lessens the "fatigue of the damsels of heaven, when play-"ing in the sky." The other inscription records that Gângeyadeva, "who made the earth, "though resting below, rise beyond the heavens "up to the abode of the gods, by raising [*on it*] "a *Meru* without equal." Meru, it may be explained, is, according to Brahminical ideas, a mythical mountain, supposed to be in the centre of the mundane system, and, like the Greek Olympus, its summit is the abode of the gods and Devas, or celestial spirits. The use of the word here, so far as I can recollect at the moment, as the name of an architectural monument, is new. Wilford did identify the Buddhist Stupa—"pyramids" he called them—with the "great worldly temple," which might be Meru; but then he is an uncertain authority. Sir Alexander Cunningham, in his book on the *Bhilsa Topes* (p. 355), describes a coin, on the reverse of which, he says, "is a *Chaitya*, or Mount Sumeru." It may be explained that a Chaitya is a "Stupa," or "Tope," and Sumeru is Mount Meru. This is of course Buddhist, but if the Buddhists identified the Stupa as a symbolisation of Mount Meru, it is quite possible that the Hindus made the same identification with the sikhara, or spire, of their temples.

Professor Kielhorn, who translates both of the inscriptions, adds a foot-note to the first quotation from them given above. It is as follows: "*Meru* "denotes a particular kind of temple [hexagonal, "with twelve storeys, variegated windows, and "four entrances; *Brihatsamhita*, lvi. 20], and "the word is chosen here because it is also the "name of the well-known fabulous mountain of "enormous height, the summit of which is the "residence of Brahman. A similar temple is said "to have been built by Gângeyadeva; see v. 9 of "the next inscription." These two inscriptions would seem to imply that this "particular kind "of temple" was common in the twelfth century, which is the date assigned to them by the Professor; yet we know of no such temples, nor remains of such in India. India is so large a country we can scarcely say what still exists unexplored, and I always hesitate about expressing a negative about the existence of any particular monument in that region, consequently I write the above with some hesitation. I may add that Fergusson made no reference to such temples.

The *Brihatsamhita*, the authority quoted, is a work on astronomy written by Varaha Mihira, who was one of the Nava-ratna, or "Nine Gems," of the court of Vicramaditya in Ujain; his date was supposed to have been the sixth century, so that from that time till the twelfth century, the date of the inscriptions, the word *Meru* seems to have been known as the name of that particular kind of temple, which, according to Varaha Mihira, was "hexagonal, with twelve storeys, variegated "windows, and four entrances." Some parts of this description might apply to the temples of Southern India, but it would be only by straining the sense of the words that they could be supposed to describe temples in Benares or Ujain.

The only guess I can make is, that Varaha Mihira has been very loose in his description, like the poetical authors of the Prasastis, and that it was only the sikhara, or spire, of the Saiva temple he referred to, which might have been known as a *Meru* in former times.—William Simpson.

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SESSIONAL NOTES.

Annual Prizes, &c., Exhibition.

A selection of the "Testimonies of Study," submitted by a few Probationers of the Institute prior to admission to the Intermediate Examination qualifying for registration as "Students R.I.B.A.," will form part of the Annual Exhibition of Prize Drawings which opens to-morrow, 6th inst., at noon, in one of the galleries of 9 Conduit Street, W. Under the present regulations every probationer desiring to become a Student has to prepare, during the period which should elapse between his passing the Preliminary and entering for the Intermediate Examination, eleven sheets of drawings [each 27 by 20 inches] neatly and carefully finished, called "Testimonies of Study," a selection from which,—the works of five Probationers,—will be shown with the Prize Drawings in London, and then forwarded to such of the Allied Societies as may wish to have them for public exhibition. Members should use every endeavour to induce their pupils, their friends, and the public generally, to visit the Institute on and after the 10th inst., for the purpose of seeing and judging for themselves, not only the works of young men who are seeking for honours in prize competitions, but also of some of those who are following an architectural curriculum, and testing their progress in it by three stages of examination which are to ultimately qualify them for candidature as Associates of the Institute.

Transactions: Original Series.

Members desirous of obtaining volumes or sets, as far as they can be made up, of the original series of the TRANSACTIONS 1834–84 should lose no time in applying at the office of the Institute for them. The cost of such volumes is much less to members than to the outside public; and the prices of volumes vary considerably according to the number in hand, and the year of publication. No complete sets exist at the Institute, other than those preserved in the Library, but sets from 1853–84 (exclusive of the rare volume for 1878–79) can be still obtained. Volumes for 1835–36 and 1842, bound in cloth, are still in stock; and indeed others of those particular years, as well as of later years, can be purchased outside the Institute from booksellers and at book sales.

The Chicago Exhibition 1893.

The twelve parts of *The North-Western Architect*, of Chicago, published last year, contain views of buildings at the "World's Columbian "Exposition" which reflect the highest credit on the enterprise and judgment shown by the proprietors of that Journal. The January (1892) number has, amongst many other illustrations, a photogravure of a Sepia drawing, by Mr. E. Eldon Deane, of the Administration Building in course of erection from the designs

of Mr. Richard M. Hunt, of New York, a Corresponding Member of the Institut-de-France, and an Honorary Corresponding Member of the Institute, who is as well-known to his brethren in Paris and London as to his fellow-citizens in the United States. It would be unbecoming in these pages to offer words of commendation on Mr. Hunt's work, but British architects should not fail to examine the beautiful illustrations of it in the Journal referred to. Among the other blocks of building pertaining to the Exhibition may be mentioned that of the Fine Art Gallery (February number), designed by Mr. C. B. Atwood; that of the Fisheries and Aquarium (June), by Mr. Cobb; and that of the Machinery Hall (November), by Messrs. Peabody and Stearns. *The North-Western Architect* is preserved in the Library.

THE LATE JOHN GIBSON.

*Past Vice-President and Royal Gold Medallist.**

The architectural profession has sustained a great loss in the passing away, on the 23rd ult., of Mr. John Gibson, of Great Queen Street, Westminster, in the 76th year of his age. He was born at Castle Bromwich, near Birmingham, in May 1817. His father was a well-to-do farmer, and gave his sons what in those days was considered a fair commercial education. John was his second son, and, as he narrated with some amusement in after-life, first exhibited the bias of his mind for construction and design by a poultry-house which he constructed for, and as a surprise to, his mother. For the further development of his exhibited skill, he went for a short time into the joiner's shop of a Birmingham builder, and from that he became an articled pupil of Mr. Hansom, the then appointed architect of the new Town Hall, who, taking upon himself an unusual responsibility to secure his much-desired use of Anglesea stone for that building, became involved; and, after a severe struggle against the cost and difficulty of working, the Corporation allowed him to go into bankruptcy, thus bringing the articles of John Gibson to a close.

At that time the beautiful Grammar Schools of Mr. Barry were progressing in New Street, Birmingham, and securing the universal admiration of all, with evidently the due appreciation of John Gibson, who very speedily secured an arrangement with the talented architect, Mr. Barry, to take over the three years uncompleted articles. He, therefore, removed, in 1835, to London, and entered Barry's offices in Foley Place, where he came into immediate contact with the working out of important and beautiful works, besides the original competition designs for the Houses of Parliament, and had the advantage and experience of seeing innumerable and ever varying studies made for these works. So soon as this work was intrusted to Mr. (afterwards Sir Charles) Barry, and he received instructions to proceed with the drawings, offices were found him on the site in the Speaker's old house, to which a portion of the staff was drafted off. Some time after, when the Foley Place offices were vacated, Mr. Gibson followed the others to Westminster, his work thenceforward being almost exclusively confined to the drawings and works connected with the Houses of Parliament. He completed his articles so satisfactorily that he remained as assistant for a further six years, securing the high appreciation and friendship of his great master.

In the year 1844 was advertised a competition of designs for the proposed new National Bank of Scotland, to be erected in Glasgow. As the conditions were satisfactory and liberal, Mr. Gibson determined to engage in the contest. There were a large number of competitors, but the designs he submitted were unanimously selected as the most worthy of execution, and they have been faithfully carried out in all important features. The style is Italian, the front being divided into five bays, with double orders, Ionic below and Corinthian above; the slightly projecting centre bay having coupled columns right and left. The angles of the building have coupled pilasters, and single only between the windows. The area of the building has a well-designed balustrade, with standard lamps on the pedestals. The ground floor windows and doorway have semicircular arches, with well executed carved heads on the key-stones. They have rusticated blocks at intervals, as well as on the jambs. The upper windows are well proportioned and boldly designed, having square heads with bold consoles, and pedimented cornices; the whole is surmounted by a deep entablature, having a richly carved frieze and cornice, with a blocking-course finish, with ornamental vases. The centre portion is crowned by arms and sculptured figures right and left. The whole composition is refined, dignified, pure in detail, and well executed, and is described somewhat in detail, because it may justly claim to be the great stepping-stone to Mr. Gibson's after success.

The more important works which followed this, although possessing more or less merit, cannot be noticed particularly here, but they are catalogued, and the dates given as nearly as can be below:—

1847 saw the Romanesque Chapel in Bloomsbury erected. In 1848 the offices of the Imperial Insur-

* The late Mr. Gibson was elected an Associate in 1849, and a Fellow in 1853. He served, at various periods, for many years, on the Council of the Institute, and was ultimately elected a Vice-President. In 1890 he received the Royal Gold Medal for the Promotion of Architecture, on the grounds of the high character of his executed works. He was not, as has been stated in several journals, a Fellow of the Society of Antiquaries of London.

ance Company were erected at the corner of Old Broad Street, in the City, an Italian design secured in competition. In 1849 the new church in Charlcote Park, Warwickshire, was entrusted to him by Mrs. Lucy. In 1852 the restoration of the entrance front of Charlcote House, and from this date to 1867 much work was done in this fine old mansion, including terraces, new gateways, lodge and bridge, besides an addition of a new wing for Mrs. Mary Lucy's residence. Also Shenston New Church, near Lichfield, and Brunswick Buildings, in New Street, Birmingham. In 1853 the new residence and studio for F. R. Pickersgill, R.A., erected at Highgate. In 1855 Combroke Schools, Warwickshire. In 1857 Myton Grange, near Warwick, an Elizabethan residence. In 1858 Plas Tower, near Wrexham, was revised with great success from a very common-looking house to one of beauty and dignity, and some portions of the interior also were remodelled and beautified; here also were built in 1860 the iron trellis bridge, entrance lodge, and gates. In 1858 extensive works were commenced at Wroxton Abbey, near Banbury, in restoration, and in the erection of a new wing. In 1860 was secured, through the influence of the Lucys, his most important ecclesiastical work, Bodelwyddan Church, near St. Asaph, for Lady Willoughby de Broke. In 1861 Woodcote, near Warwick, an important residence, was secured. In 1864 the Directors of the National Provincial Bank of England having determined to erect important new buildings for their head offices in Threadneedle Street, the selection of their architect was determined by a special examination of the various modern erections of London, and, after a careful study, they unanimously determined to employ Mr. Gibson, upon the appreciated merits of his Imperial Insurance Offices; the result was not only the erection of the most original and imposing Banking establishment in the Metropolis, but also his employment throughout the country for the alteration, enlargement, remodelling, and building of all its new branch offices, many of them of considerable importance and merit, the chief ones being for Tamworth, Salisbury, Southampton, Birmingham, Newcastle, Gateshead, Middlesbro', Piccadilly (London), Stockton-on-Tees, Durham, Sunderland, Baker Street (London), and many others,—in all about forty in number, and extending over a period of twenty years. In 1865 the Fielden family of Todmorden became liberal clients—Mr. John, Mr. Joshua, and Mr. Samuel all employed him upon various and very important works; Dobroyd Castle in 1865, an entirely new work; also the new Unitarian Chapel at Todmorden. In 1870 the Town Hall in the same town; in 1871 Nutfield Priory, Red Hill; in 1866 was erected the Molyneux Mausoleum, at Kensal Green Cemetery; in 1868 the new chancel of St. Nicholas, Warwick; in 1871 additions and alterations to Guy's Cliff, Warwick; in 1873 Imberhome, a new residence near East Grinstead; in 1873 New Church, Bersham, Plas Tower; in 1874 Bix Church, near Henley-on-Thames; in 1875 the City Bank, Exeter; in 1876 the offices of the Society for Promotion of Christian Knowledge, Northumberland Avenue, London; in 1878 Messrs. Child and Co.'s Bank, Temple Bar, London; also the new church and vicarage, Old Milverton, near Leamington; and in 1883 the Bank, Lincoln.

The above comprise nearly the whole of the works designed and carried out by Mr. Gibson. It may be said that, without an exception, he followed in the footsteps of his great master, in keeping strictly to the purest style of the architecture of the Middle Ages and of Italian. Nothing could induce him to put his hand to the style of the Dutch, or to that which is now popularly called the style of Queen Anne.—W. H. Brakspear.

Corsham, Wilts, 3rd Jan. 1893.

SOMERSET HOUSE.

How an Architect at the end of the Eighteenth Century was assisted by the First Sculptors of the Time.

During the inspection of the manuscripts relating to Somerset House, presented by Mr. W. W. Pocock, it soon became apparent that their interest was increased beyond the mere tradesmen's bills for "bricks and mortar" and other such materials used in the erection of the edifice. The "decoration" and its cost were all before me. The paintings, being few and wholly confined to the Strand portion, were included in the last notice [p. 106 *ante*]. The plaisterers' work was also referred to, and as specimens of the hand-worked stucco of the eighteenth century are trustworthy "fine-art" productions of Thomas Clarke, Joseph Rose, Thomas Collins, and John Papworth. There is evidence that Clarke was indignant at the inferior prices allowed him by Sir William Chambers for his good work, because his brother Charles printed one of the bills in 1783 with a comparison of the prices, and his comments thereon.

These Books of Accounts afford all the necessary information as to various branches of the work of the carver and the sculptor (termed statuary); they are likewise of much value, for the prices are all attached, exhibiting how the artists were employed and took their parts *under* the presiding genius, the architect. It cannot have been yet forgotten how much interest was evinced last Session by the three Papers read one night, entitled "Sculpture and Sculptors' Methods in "relation to Architecture," wherein it was attempted to be vouched for that "if the sculptor "be taken early into consultation he will be able, "if he rightly appreciate architectural completeness, to give expression to the purpose and "object of the building, to emphasise its character, "and animate it with life and beauty. . . . If ". . . treated as an 'Applied Art,' it is sure to be "omitted on motives of economy, and eventually "forgotten."

Unfortunately we do not know, in this instance, how early the "Statuary" came to be informed of his proposed employment, or who chose the subjects for his talents and genius, which will be found so carefully detailed in most of the payments. But there is this to be said, that Chambers was apparently responsible to no one, not even to the House of Commons; perhaps he may have been somewhat to his friend the King. He had the good fortune to be almost "the First Com-"missioner," for he held the important office of Comptroller from 1769, and that of Surveyor-

General from 1782, as well, of the Royal works; and he no doubt kept the appointment of the painters and sculptors in his own hands. I have not seen the Act of Parliament referred to in the previous notice, and therefore do not know of any drawback as to his rights and privileges. A talented *Report* by Chambers, on the state and progress of this edifice, was laid before the House of Commons on 1st May 1780; he stated that "as far as the "architect's judgment and experience in business "can guide him, he thinks it (the cost) will cer- "tainly not exceed the sum of £250,000." By an account laid before the House in March 1790, the sum of £334,703 had then been expended, and an additional sum of £33,500 was wanting to complete the structure. But that proved insufficient, and it is generally understood that half a million sterling has been expended on this pile—as it was left by Chambers. This is quoted from Britton and Pugin [*Edifices of London*, 4o. 1828, vol. ii., *A Description of Somerset House, by E. W. Brayley*, F.A.S., *with plates*]. It is there stated that the first stone was laid in 1776, but of this fact no record has been found.* Besides this description, there is an earlier one full of details in *The Thames; or Graphic Illustrations of Seats, &c., on the Banks of that Noble River, from original drawings by Samuel Owen, Esq., and engraved by W. B. Cooke*, 2 *vols.* 8o. 1811. From this last could have been obtained the details of most of the sculptured work, had they not been carefully entered with ledger-like accuracy in the MS. books under review,† to which I now revert as follows:—

In the Accounts for the year 1777 are the first charges for the works of sculpture.

To *Joseph Wilton*, Statuary. 6 relieved high finished Colossal Heads cut in Portland Stone, at 21£ = £126. 0s. 0d. [For the front next the Strand.]

To *Joseph Nollekens*, Statuary. Carving 5 keystones for the back front in Portland stone at 21£, £105.

Agostino Carlini, Statuary. 3 colossal Heads in key stones, at £21 = £63. 0s. 0d. [Colossal masks comprise Ocean and the eight great rivers of England, namely, the Thames, Humber, Mersey, Medway, Dee, Tweed, Tyne, and Severn, with appropriate emblems.]

Sefn. Alken, Carver. To a Truss with rich foliage leaf and moulding in front and Scrowls on profile, £1. 15s. 0d.

First half, 1778.

Richard Lawrence, Carver. To carving in Portland Stone Ten faces of Corinthian capitals, to four columns for the Back front; the work sunk very deep and the leaves work'd hollow, at per face £7. 16s. 9d. = £78. 7s. 6d. To five faces of ditto to three pilasters, at £7. 16s. 9d. = £39. 3s. 9d. Total, £117. 11s. 3d.

Second half, 1778.

John Cheere, Figure maker. To moulding, casting, and finishing 4 large Sphinxes in a strong substantial manner, in hard metal, lead and block tin, at each £31. 0s. 0d. £126. 0s. 0d.

John Bacon, Statuary. To a Group of Colossal Figures on the Strand front, consisting of Fame and the Genius of England supporting the British arms, with a Festoon of laurel, and the Insignia of the Order of the Garter, including stone and the expences setting up, £367. 10s. 0d. To a ditto on the Back front, representing two Tritons supporting the British arms, adorned with coral and other marine productions, and a net filled with Fish suspended from the same, £367. 10s. 0d. To carving the key stone of the great arch of the Embankment, £25. 0s. 0d. Total, £760. 0s. 0d.

[The keystone of the watergate of the embankment wall, in the centre, is sculptured with a colossal mask of the river Thames. The eighth side arches, formerly open to the water, are flanked by square projections, surmounted by enormous figures of couchant lions, in Portland stone, each between eight and nine feet in length.] These are the lions by Wilton and Rossi done in 1790.

Joseph Wilton, Statuary. To four Colossal Statues highly finished in Portland Stone, representing Europe, Asia, Africa, and America, erected on the Attick of the Inner front of the Royal Academy, including every expence of carriage, erecting and compleating them, each £120. £480. 0s. 0d.

Agostino Carlini, Statuary. To two Statues in Portland stone, 7 ft. 6 in. high, with their plinth, representing Justice and Prudence, including the expence of carriage and setting them up, at £120 each. £240. 0s. 0d.

Joseph Cerrachi, Statuary. Carving two Statues in Portland stone, representing Temperance and Fortitude. Expences attending setting up included, at £100 each, £200. For 5 masks modelled in wax for the Model of the front, £3. 3s. 0d. £203. 3s. 0d.

[On the *acroteriæ* in front are four colossal statues, in Senatorial habits, holding the fasces in one hand, and the symbols of Justice, Truth, Valour, and Temperance, respectively, in the other.]

First half, 1780.

Edward Watson. For ornaments for the new offices at Somerset House. 106 small lead Pateras, 2½d. each; 98 larger do. at 3d.; 18 do. at 6d.; 14 do. at 9d.; 4 do. at 10d.; 31 water leaves, 10s. Putting up the Pateras, &c., 4s. 0d.; 1 Paper Rose, 1s. 6d.; 19 Friezes to Chimneypieces, ornamented, £10. 17s. 8d.; 48 ft. 6 in. run of lead frize to the Bookcases in the Royal Academy Library, at 2s. 6d. per foot, £6. 1s. 3d.; 137 ft. run of large lead Frize in the Exhibition room at 4s., £27. 8s. 0d. Total amount, £48. 11s. 10d.

Second half, 1780.

Richard Lawrence, Carver. The Exhibition and other rooms to the Royal Academy. A long account for flowers, medallions, &c.; a chimneypiece; O Gee's architraves, tablets, and other decorative works, £370. 17s. 7d.

Seffinin Alken, Carver. Royal Society's side: chimneypieces and architraves, &c. Royal Antiquarian library ditto. Total, £351. 8s. 3¼d. Signed Samuel Alken, Executor.

Joseph Wilton, Statuary. In the Building next the Strand. Sundry enriched and plain chimneypieces set up in the principal room, mezzanines, and attics, £1097. 3s. 2¾d.

* *The Gentleman's Magazine* and *The Annual Register* have been consulted. It may have been done privately by the architect.—W. P.

† The paragraphs within brackets are chiefly from this book of 1811.—W. P.

First half, 1782.

Richard Lawrence, Carver. To carving in Portland Stone 29¾ faces of Composite capitals, to the north and south fronts of the Main Building, 2 ft. 5 ins. diam. 2 ft. 10 ins. high; the Volutes much undercut and the Leaves very rich and bold, at per face £9. 9*s.* 0*d.* = £281. 2*s.* 9*d.* To carving in Portland Stone 4 Goats heads over the windows to the Principal floor, at 18*s.* each = £3. 12*s.* 0*d.*

Total, £284. 14*s.* 9*d.*

Samuel Alken, Carver. To making in Wood a model of a Composite Capital 1 ft. 1 in. in diam., £4. 10*s.* 0*d.* To Carving [a similar set of Capitals as above] £281. 2*s.* 9*d.*; No. 9 Goats heads [ditto] at 18*s.* each = £8. 2*s.* 0*d.* Total, £293. 14*s.* 9*d.*

Second half, 1783.

Joseph Wilton, Statuary. In plain chimneypieces, in Principal and Attick Stories of the west wing to the Strand Building [measured account as before], £45. 17*s.* 11¼*d.*

First half, 1784.

Samuel Alken, Carver. Additional pieces of the cornice to the Bookcases in the Royal Society's Library, 5*s.* 0*d.* Carving a Truss for a Bust with rich leaves in do., £1. 8*s.* 0*d.* Modeling, moulding, casting, and repairing 6 heads for key stones to the superstructure on the centre of the main building, at each 19*s.* = £5. 14*s.* 0*d.* Total, £7. 7*s.* 0*d.*

Second half, 1784.

Richard Lawrence, Carver. Carving in Portland stone, Bunches of Ribbands and drops of Leaves to 4 Ovals; Two to the South Front and Two to the West Front of the East return, at £4 each = £16. 0*s.* 0*d.* Carving in Wood 24 Swags and Drops of Drapery, and Bunches of Ribbands to the Turrets on the East and West returns at 13*s.* each = £15. 12*s.* 0*d.* No. 40 ditto for the dome on the Main building, at 12*s.* each = £24. 0*s.* 0*d.* Total, £55. 12*s.* 0*d.*

Richard Rathbone, Carving in Wood to the Pediment in the centre of the North front, 34 ft. long 7 ft. high in the middle: Two Sea horses with a figure of Amphitrite supporting the Naval Arms, &c. Two Tritons at one end, and a Demi Boy, &c., at the other: all executed in Alto Relievo, including Model, Total, £87. 0*s.* 0*d.*

Joseph Wilton, Statuary. In Chimneypieces in the Attic, Principal, and Ground Stories of the main Building next the River; and in Medallions to the same Building, and to the East and West Returns. Two Chimneypieces at £60 each, one at £47; To modelling, moulding and carving in Portland Stone Eight large Oval Medallions 3 ft. 3 in. by 2 ft. 2 in., representing the Winds and Seasons, including all materials and fixing, at each £22 = £176.

Total amount £945. 4*s.* 7*d.*

Richard Hayward, Statuary. A Statuary and Sicilian Jasper marble Chimneypiece, set up in the Board room to the Stamp Office, £51. 5*s.* 0*d.* A Statuary and Spanish marble ditto, set up in Board room to Salt Office, including fixing, £51. 5*s.* 0*d.*

Total amount, £102. 10*s.* 0*d.*

Thomas Banks, Statuary. Carving in Portland Stone two Trophies with Naval and Military ornaments for the centre of the north front in the Great square, £124. 10*s.* 0*d.* For Portland Stone for same, at per foot 2*s.* 6*d.*, £20. 5*s.* 0*d.*

Total, £144. 15*s.* 0*d.*

For the year 1785.

Thomas Banks, Statuary. Carving in Portland stone 2 Trophies with Naval and Military ornaments for the centre of the Building next the River, at each £62. 5*s.* 0*d.* = £124. 10*s.* 0*d.* 162 ft. cube Portland stone for do. = £20. 5*s.* 0*d.* Total, £144. 15*s.* 0*d.*

Richard Rathbone, Carver. Beads in architraves of Doors and windows, £3. 4*s.* 0*d.* 2 Trusses to oval staircase, £2. 8*s.* 0*d.*. Carving in Wood a Pediment in centre of South front, 34 ft. long, 7 ft. high in the middle, [&c., as before,] £78. 0*s.* 0*d.*

Total, £83. 12*s.* 0*d.*

[In the central division of the south front of the quadrangle is a pediment in which is a large basso relievo, representing a sea nymph drawn by sea horses, and guarded by tritons, supporting the arms of the British Navy. Naval trophies are grouped over the outer angles of the pediment.]

First half, 1786.

Richard Hayward, Statuary. Chimneypieces in the Attick, Principal, and Ground stories of the West return Building, £212. 5*s.* 4½*d.*

Second half, 1786.

Richard Lawrence, Carver. No. 2 ornamental key stones in Portland stone, carved with a rich Corinthian leaf and mouldings in the front; Scrowls on the sides with a flower on the eye, 1 ft. 1 in. high, 10½ ins. wide at the top, and 7 ins. wide at the bottom, at 2£. 2*s.* each = £4. 4*s.* 0*d.* No. 4½ faces of rich Ionic Pilaster Capitals in Portland stone enriched with Carving in the Volutes and festoons of Flowers, 1 ft. high, 1 ft. 0¼ in. diameter, at per face £3. 0*s.* 0*d.* No. 2 very rich Festoons of Flowers, at £3 each. No. 4½ faces of rich Ionic pilaster Capitals—under great arch leading to the Terrace at East end leading to the Terrace, £3. No. 2 Flowers carved in soffit of ditto, £5. 10*s.* 0*d.* No. 16 Faces of Composite Capitals to Columns to North front of Loggia over ditto, at West end of main Building 2 ft. 5 in. diam., 2 ft. 10 in. height, the Volutes undercut and a rich acanthus leaf cut deep, £9. 9*s.* 0*d.* Total £202. 8*s.* 0*d.*

Richard Rathbone, Carver. No. 20 Trusses carved in wood under the Gallery of the Sale Room in the Navy Office, 2 ft. 6½ in. long, 7 in. wide with raffled leaves, &c. at 25*s.* each. No. 12 Flowers in Portland Stone in Soffit of the Arches, ditto, 1 ft. 8½ in. diam., 2 in. embost, &c. £5 10*s.* 0*d.* each. No. 16 Faces of Composite Capitals to columns at £9 9*s.* 0*d.* each to the South front of the Loggia over the above arch, 2 ft. 5 in. diam., 2 ft. 10 in. high. Total £242. 4*s.* 0*d.*

Joseph Wilton, Statuary. In Chimney pieces in the East and West return buildings, and some in the main building. Two chimney pieces of Statuary and Ponsevera marbles in Commissioners Room for Auditing the Public accounts and Treasurers Room of the Navy Pay Office, £55 each.

Total amount £835. 4*s.* 3⅓*d.*

John Bacon, Statuary. Money advanced to him on account of the Bronze Group to be erected in the Great Court: on June 9th 1780, April 25th 1785, May 9th 1785, and February 8th 1786. Received June 5, 1789. Total £1100. 0*s.* 6*d.*

First half, 1787.

Richard Hayward, Statuary. A large Statuary and Sienna marble chimney piece, &c. &c.,

£51. 5*s.* 0*d.*

Richard Rathbone, Carver. A large Ornament in Portland Stone over the Arch next the Terrace at the

West end of the main Building, 16 ft. long by 10 ft. 6 in. high; on the key stone, the head of Neptune with Dolphins, Sea weeds, the Navy arms, Swags of Laurel leaves, Crown, &c., the greatest part carved all round, including modelling, &c., £140. 0*s.* 0*d.*

E[lizabeth] Coade. For artificial Stone Vases for the top of the New Buildings at Somerset House. Twenty-nine Vases modelled to design, at £6. 6*s.* 0*d.* each, = £182. 14*s.* 0*d.* Cartage and setting up, £10. 8*s.* 6*d.* Signed J. Sealy. Total £193. 2*s.* 6*d.*

[In Sir John Soane's Museum are the original drawings for these Vases, with minute directions for the decorations to them.]

Second half, 1787.

Joseph Wilton, Statuary. Chimneypieces, hearths and covings, &c.

No. 8 Large Vases enriched with Tritons and other Emblematical figures, ornamented with Festoons and Trophies allusive to the different Offices, executed in Portland stone and set up in the Recesses in the South front and the Great Court, materials and setting up included, £640. 0*s.* 0*d.* Total £678. 6*s.* 9*d.*

[Near each side of the principal entrances, on vase-like pedestals, are groups of piscatory figures, &c., with sculptured ornaments analogous to the general business transacted here.]

James Thorpe. Composite Ornaments for Chimneypieces, &c., Friezes, capitals, vases, &c., a large number of various kinds. Total £21. 2*s.* 6¾*d.*

Book for 1788 missing.

Second half, 1789.

Joseph Wilton, Statuary. In Chimneypieces in the Treasurers and Comptrollers of the Navy's houses, with 2 Chimneypieces of Statuary marble, &c. at 55£ each; and 1 Chimneypiece of Statuary marble, enriched, &c. at 60£. Total £502. 2*s.* 3½*d.*

James Thorpe. Composition Ornaments in the Treasurer of the Navy's House. Friezes; £22. 0*s.* 0¾*d.*

John Bacon, Statuary. To Erecting and completing the Bronze Group in the Great Court, as per Agreement £2000. By cash received during the Execution of the same up to Christmas 1786, £1100, Balance £900. "Entered here by mistake it being "accounted for in the book for Mids. 1788," is written at the side in red ink. [This book is missing; therefore this entry is a valuable error, as it enables us to know the cost of this group. The critic in 1811 wrote:—"In the Court, and opposite to the "entrance of it, is a statue in bronze, of his present "Majesty (George III.). It is by Bacon, and by no "means a reputable work of that sculptor. At his "feet is a recumbent figure of the Thames of the "same materials, with a cornucopia pouring forth "wealth and plenty. The position of this statue is "such as to excite the wonder, if not the ridicule of "the spectator, as it is placed behind a deep area, "and on the very brink of it."]

The year 1790.

Richard Hayward, Statuary. 6 chimneypieces, two at 30£, one at 40£, one at £42, and two at 60£ each. Total, £262. 0*s.* 0*d.*

Joseph Wilton, Statuary. For modelling, moulding, casting in plaister and executing in Portland stone, two colossal Lions, each 10 ft. 3 in. long, erected on the Eastern Water Gate of the Great Terrace, as per Agreement at £100 each. £200. 0*s.* 0*d.*

Charles Rossi, Statuary. Two ditto on Western Water Gate, £200. 0*s.* 0*d.*

Richard Lawrence, Carver. 6 Faces and ⅛ of Composite Columns in stone to the Pilasters and Angles at the East end of the main Building as before, at per face £9. 9*s.* 0*d.* = £58. 5*s.* 6*d.* No. 11. Faces of Ionic capitals in Wood for the Comptroller of the Navy's house, 1 ft. 6 in. diameter; ovolo carved with close egg and anchor, the bead beaded, the volutes worm'd and flowers in the Eye, and a bead carved with Laurel leaves, at £1. 12*s.* 0*d.* = £17. 12*s.* 0*d.*

Total, £75. 17*s.* 6*d.*

Richard Rathbone, Carver. A large Ornament on the Water front of the Lodge at the West end of the Terrace, 15 ft. 6 in. long, 8 ins. projection, carved with large Bows of ribbands, swags and drops of Laurel leaves, £30. 0*s.* 0*d.* A pair of Trusses for the side of Pedestal for Group in the Square, with raffled leaves, husks and flowers at the sides, highly finished in Portland stone, at £5. 10*s.* 0*d.* each. Two Trusses carved in Wood for a Door case in the Treasurer of the Navy's house with Raffled leaves &c. in front and ornaments at the sides, at £1. 4*s.* 0*d.* each. Two contracted friezes for the bottom of the Staircase, in wood, with Foliage at the ends for same house, at £1. 1*s.* 0*d.* Total, £44. 9*s.* 0*d.*

First half, 1792.

Joseph Wilton, Statuary. In Chimneypieces to the 2nd, 3rd and 4th houses for the Commissioners of his Majesty's Navy, and in the additional apartments belonging to the Keeper of the Royal Academy. No. 2. Statuary marble Chimneypieces, &c., £110. 0*s.* 0*d.*; another, £35. Total, £362. 14*s.* 9¼*d.*

First half, 1795.

Richard Rathbone, Carver. To four columns and four pilaster Ionic capitals in wood, 18 in. diameter, ovolo ornamented with close egg and anchor, the bead beaded, the volutes wormed, a flower on the eye of ditto, and a bead carved with laurel leaves, making in all 22 fronts, at per front 33*s.*

Total, £36. 6*s.* 0*d.*

The following details of other sculptures which may have been included in the missing Ledgers are taken from the two publications named at the commencement of this article.

On the tablets [in the Strand front] occupying the frieze of the three middle windows, are medallions, with festoons, in basso relievo, of their late Majesties, and of his present Majesty when Prince of Wales.

Over the Corinthian columns [of the inner front of the Strand portion] are grouped ornaments, composed of antique altars and sphinxes, which are judiciously contrived to screen the chimneys. On the keystones of the great arches masks are sculptured, intended to represent the *Lares*, or tutelar deities of the place.

Over the central doors in this vestibule [of the Strand portion] are two busts in Portland stone, by Mr. Wilton: that on the side of the Academy represents Michael Angelo Buonarotti, the first of artists; and that on the side of the learned Societies, Sir Isaac Newton, the first of philosophers.

The research I have thus made into original documents relating to Somerset House and the Horse Guards has been pleasing and instructive. Mr. Pocock deserves our best thanks for his thoughtful donation, so gratifying to the profession in the light it throws upon English art during the eighteenth century.

Wyatt Papworth.

CURRENT CRITICISMS.

The Morning Herald AND *The Athenæum*—PROFESSOR MIDDLETON'S *Remains of Ancient Rome*—LORD GRIMTHORPE IN *The Nineteenth Century*—THE METROPOLIS AND ITS MASTERS.

Many years ago, when people used to read their London Charivari, and were not satisfied with merely glancing at its pictures of life and character, no newspaper offered greater opportunities for innocent delight than *The Morning Herald*. In those days, when the chop-house waiter, appealed to by some customer for "yesterday's "*Times*," handed him "to-day's *Herald*," he was, as London waiters used to be, hard-headed, practical, and English. Now, when at club or restaurant, at noontide, every copy of *The Times* is engaged, you involuntarily take up the first edition of an evening paper, with columns of telegrams complete as if they had just reached it along its own particular wire; and no time is wasted in waiting. Why, alas! are the wants of moderns so fully provided? Why is everything so perfect, every one so accurate? It was not always so. Jeames de la Pluche, when he told an anxious world that he had been to the Herald's Office to inquire about his pedigree and coat of arms, took care to explain that he did not mean *The Morning Herald's* office—he would not have gone there, he said, for accurate information. But that was in ancient historical days, and the organ of Mrs. Harris has long lain low, though some of its contemporaries still flourish with a family vigour, almost irritating to those who knew Her. Indeed, *The Athenæum*, which we have always with us, like fog and the influenza, has lately given some historical news respecting the position of the Royal Institute of British Architects in 1891. In its last issue but one, of the 24th ult., that enterprising print said that "The "Institute itself was divided against itself; large "secessions took place from among those whom "it had previously enrolled; and a protest was "addressed to the President and Council"—as if secessions from it could have taken place from among those whom it had not previously enrolled! But *The Athenæum* is not responsible for this story of the "large secessions" which has been told in several journals with good faith and without the slightest desire or intention of injuring the Institute. Happily, statistics showing the number of professional members of the Institute exist, and they are easily given, viz.—

Year	Fellows	Associates	Total
Oct. 1885	404	694	1,098
„ 1886	419	689	1,108
„ 1887	428	681	1,109
„ 1888	466	723	1,189
„ 1889	511	757	1,268
„ 1890	533	779	1,312
„ 1891	576	790	1,366
„ 1892	617	806	1,423
2 Jan. 1893	621	806	1,427

Here, again, is a comment, by an *Athenæum* literary critic, on the "style" of a harmless sentence, which he found (after the customary hunt for orthographical errors) in a book written by a Fellow of King's College, Cambridge, on *Revolution and Reaction in Modern France*:—

On the last page of the author's dissertation upon the Second Republic he says, "There was not then, "as there is not now, a Morrison's Pill to meet the case; "to remodel society in a moment of revolution was "the illusion of 1848." Now, without any affectation, we protest that we have not the faintest notion of the effect on the human body of a Morrison's pill, or for what ills it is said to be a specific; but . . . In these days of unabashed advertisements it is rather bold for an educational writer to sing the praises of a patent medicine, even in a parable" . . . [*The Athenæum*, 31st ult., p. 913.]

"Without any affectation," forsooth! And in *The Athenæum*, whose literary, scientific, and fine art "gup" is week by week interlarded with editorial advertisements of sympathetic publishers and West-End tradesmen! Apart, however, from this, the critic's dreary "protest" out-heralds the old matutinal *Herald* itself. Mrs. Harris, in her prime, was never so pharisaically honest; nay, it is the Mother of the Modern Gracchi *redivivа*—Mrs. Hominy rebuking Martin Chuzzlewit for that coarse, that indecorous, allusion to "the naked eye," which he made, quite innocently, a full score of years before Culture had softened the manners of men like Mr. Pecksniff, whose pupil he was.

Here is another *Athenæum* paragraph, two-thirds of which breathe inaccuracy in every word, culled from its "Fine Art Gossip":—

Mr. John Gibson, an accomplished pupil of Sir Charles Barry, is dead, aged seventy-five. He had much to do with the building of the Houses of Parliament, with several of the more important provincial works of his chief, and, single-handed, was largely employed at the Northumberland Avenue. [*The Athenæum*, 31st ult., p. 928.]

But I am not venturing upon a Quixotic crusade against a journal so commercially valuable as *The Athenæum*. To a man who has made as many blunders in print as I, there is no consolation greater than half an hour's quiet enjoyment of its pages. On the contrary, it is pleasant to record that, in this very last number of the journal to which I am referring, a critic, who writes with common sense and earnestness, and adds his well-known initials, expresses himself like a man of the world and a scholar, in defence of progress and the public health. Here is the pith of what "R. L." has to say of the new Preface to Professor Middleton's revised edition of the latter's work on Ancient Rome, now entitled *The Remains of Ancient Rome*:—

After what I have said, in simple justice to the author, I believe I shall be pardoned if I add that the preface—a short preface, covering hardly two pages—is not calculated to impress favourably the impartial reader in general, while it is intolerable to the Italian, and to the Roman reader especially. It is not a question of archæology; it is a question of personal

appreciation, in which even the best of friends must be allowed to dissent. Those few lines are so hard on our national and municipal governments, so excessive in condemning whatever has been done for the sanitation and general improvement of the city of Rome since 1870, that I can hardly believe them to have been written by such a just and impartial judge as Prof. Middleton shows himself to be in everything else connected with archæological controversy. . . . I do not deny that the problem was a difficult one, and that errors have been committed in an enterprise which has cost the State, the city, and the companies, twenty years and one thousand millions of lire; but the results are altogether more than satisfactory. . . . Still Rome is compared to "a "third-rate Parisian suburb" (p. vi., and see ii. 243); the epithets of "horrible," "outrageous," "hideous," "dreary," "ugly," and "disgusting," are bestowed lavishly on all our works of public and private benefit since 1870; especially that of "hideous," which, besides the preface, occurs in ii. 126 and ii. 364. Had these expressions appeared in a daily paper, or in an occasional contribution to a magazine, we should certainly not have protested *contra folium quod vento rapitur!* But in a work of such value and magnitude as this, equity is the first requirement.

The information supplied to the author on the subject is, at all events, not exact. [Here follow details and references to the inaccuracies found by "R. L."]. It is lucky for the memory of Mæcenas and Horace that they lived so long ago, otherwise the great works of sanitation of the Esquiline quarter, which the first accomplished and the other celebrated in Satire viii., would have been stigmatized as the present sanitation of the Valle Sallustiana (the poisonous effluvia of which made the whole neighbourhood unhealthy) is condemned in ii. 243. [*The Athenæum*, 31st ult., pp. 926–7.]

"R. L." concludes a favourable and most temperate review of Professor Middleton's revised work by stating that he has sought in vain therein for a word of praise for the great exavations of the Pantheon, of the Baths of Agrippa, Titus, and Caracalla, of the Forum Romanum and Augustum, of the Palace of the Cæsars, of innumerable temples, houses, tombs, bridges, acqueducts; for the recovery of thousands of works of art, historical documents, and inscriptions; for the institution of new museums; for the duplication of the archæological wealth of Rome; for a chain of discoveries—in brief, the very materials without which Professor Middleton could not have made his most ungracious book.

"Ungracicus" is perhaps a hard word, although there is a harder one, which means much the same thing, only more so, as burlesque authors have said; but I am not inclined to use it, as it might be made to apply to the current number of *The Nineteenth Century*, which, as architects ought to know, is edited by a Fellow of the Institute, who inherited from his father—James Thomas Knowles—a deservedly honoured name. That number is already famous for as sportive a piece of writing as ever was penned by the Right Honourable the Lord Grimthorpe—an article which lies, in mid-ocean as it were, between Lady Jersey's "Three Weeks in Samoa," and the Rev. Father Clarke's personal view of "Happi-"ness in Hell." Here are characteristic extracts from what his Lordship, in his latest capacity as a member of the Highest Legislative Assembly in the British Empire, has to say about the self-enforced examination of British Architects:—

They [Lord Grimthorpe is referring to the "Exami-"nationists"] say there is no more reason why doctors and lawyers, clergymen and soldiers should not be allowed to practise on mankind unexamined and uncertified than architects: which looks plausible enough to that mass of people who can only see resemblances which require no thought, and not differences which do. But doctors may kill people in numbers unknown through mere ignorance, and lawyers can ruin them without their mistakes being found out sometimes for years. Clergymen who are ignorant of the original records and standards of the faith of their Church are evidently unfit to teach it. Officers with no knowledge of the arts and sciences of war may ruin a nation in a week. . . . Then the examinationists, like foxes sometimes, take refuge in drains, a very popular retreat just now. . . . But unless examination would secure their inspecting the work as it goes on, *per se aut per alium* for whom they are responsible, before they are paid for certifying that it is done right, it would do very little good and much harm, being a mere delusion. And so, on the very point where the prigs who think the world can be rectified by examining everybody feel strongest, their case utterly breaks down when *it* is examined. And the same of all the pretences that constructional defects, and *a fortiori* artistic ones, can be prevented in that way. It would only generate a still greater number of untrustworthy impostors certified as true men. [*The Nineteenth Century*, January 1893, pp. 69–70.]

I confess, in all humility, that I prefer Lord Grimthorpe's earlier utterances on the subject, especially those of eighteen years ago, when, as Sir Edmund Beckett, Q.C., leader of the Parliamentary Bar and a distinguished lawyer to boot, he delivered himself, at a General Meeting of the Institute, of the following excellent admonition:—

Now I am going to ask an unpleasant question, and a bold one to put in this room. Have the public any security whatever that any man who calls himself an architect does understand his business practically even as much as the builders whom he professes to instruct, or that he will exercise any efficient superintendence, or that his certificate of completion to his satisfaction according to the contract, will be any guarantee for it being found in good condition ten or even two years hence? Many of you doubtless do fulfil these conditions, but the question is how is anybody to know whether any given architect, whose reputation is not yet established, does or will fulfil them?

. . . . . .

Mr. White properly referred to Viollet-Le-Duc's amusing description in his late book of how architects are generated in France; and he added that it is not the same here. But is it any better? What real measures do you take, collectively or individually, to secure that men calling themselves architects should know anything of architecture, beyond what they pick up in the offices where they sit for a time copying drawings and specifications? Lawyers and doctors are not let loose upon mankind to ruin or to kill them without having satisfied competent examiners that they are competent, besides having gone

through certain practical courses of education, doing under the direction of others what they will have to do for themselves. What evidence is there for the public that any man setting up as an architect has the smallest scientific knowledge, or even a decent practical knowledge of mechanics, or even of the common work of building, of the qualities of different materials, or, in short, of anything at all, beyond being able to make a sketch which will satisfy ignorant employers, and plans and elevations from which builders will contract—as they would from anything? . . . . Now here I do not doubt that you will agree with me, more than in some of my previous remarks, and will think as I do, that you ought to have some power of giving diplomas or some kind of certificate of qualification for practice as an architect.

At the same time I must warn you against expecting that you would get an Act of Parliament to prohibit anybody from being employed to design buildings whom anybody else chooses to employ, though you may have power to distinguish those whom you have ascertained to be qualified. Here again you must not be misled by analogies. Ruination by bad advice, and killing instead of curing, are rather more serious matters than the difference between good and bad architecture.

. . . . . .

I confess, however, that I see great difficulty in testing young men's practical qualifications for being architects, for those most easily tested, such as drawing, are no tests at all of a capacity for designing, much less any proof of good taste. The designers of most of the grandest buildings in the world could not have made a picture of them which would have had a chance in an architectural competition; or of a prize in a drawing school; and some very nice artists are utterly bad architects. But knowledge of mechanical science, in which some architects are woefully deficient, can be tested easily; and you who are in the habit of taking pupils to educate for architects ought to be able to know how to test their proficiency, though I may not be able just now to suggest the best way of doing it. [TRANSACTIONS, 1874–75, pp. 73–76.]

That admirable speech, made by Sir Edmund Beckett early in 1875, occurred during the discussion of a Paper, prepared by the writer of these lines, in reply to what the present Lord Grimthorpe calls "a most jerry-built article in *The "Quarterly Review* of October 1874," entitled "The Hope of English Architecture," in which the "Inspired Working-man" came prematurely into existence, and died young, as befits those loved by the gods,—indeed, he lived but a few months after parturition, and it would be unfair to ignore that Sir Edmund had a willing hand in his death. Since then the Institute, many of whose members took to heart, as I did, the searching questions put in Sir Edmund's Exhortation, has imposed upon itself the obligatory examination of all those who aspire to belong to its class of Associates; and from May 1882 until the present hour no one has been elected to membership in that, the junior class, without having first satisfactorily passed an examination which requires careful preparatory study; and which has already succeeded in planting, in various parts of the United Kingdom and the more important colonies of the Empire, good, set, educational curricula, requiring only time and patience to ripen and bring forth fruit.

A foretaste of the mental fog which the latest onslaught upon architects as a body in *The Nineteenth Century* must generate among reasoning men, leads me irresistibly to reflect on the horrors experienced in metropolitan London during the shortest day of 1892. Of course, the County Council, even if they had the will, have no power to render its streets safe on such a day as that. But they certainly have the power to discuss, in general meeting, or in special committee, the several means of rendering the Metropolis bearable to its inhabitants in times of blackest fog. If the London Council chose to open a debate on any subject whatsoever—even on those which made the Academy of Lagado immortal—no higher power would interfere, for they can always promote a Bill in Parliament to put in force the resolutions they may choose to pass. I am quite aware that the Parks of central London, which are prolific feeders of fog, are under the control of the Office of Works and Public Buildings; that some of the Gardens are under the control of Paving and Lighting Commissioners; that London drains, London water, London gas, London smoke, and a host of metropolitan things which combine to make London dangerous, are at present wholly beyond the influence of the London County Council. But I fail to see why, when a man dies of typhoid fever, or gets choked in a fog, or is run over in a fog-benighted street, the calamity should be attributed to a law of nature or the Visitation of God. The possible avoidance of such accidents ought to be quite as much a matter of the conscience to County Councillors as abolition of the system of general contract, and the enforcement of what they call fair wages.

WILLIAM H. WHITE.

The Geographical Journal.—The transactions of a learned society have, as a rule, no very wide interest beyond the circle of membership, nor are they generally accessible to the public. The Royal Geographical Society, however, recognising that its province is one of constantly increasing popularity and importance, has adopted the very commendable course of publishing its proceedings, together with some of the principal papers read at its meetings, and other articles on geographical subjects, in the form of a monthly magazine. A useful and prosperous career may be predicted for the *Geographical Journal*, the latest of the magazines, and not the least attractive either to experts in geography or to the general reader. To say nothing of the romance of geography at a time when some new country is explored and described almost every week, our commercial and political interests will be well served by a periodical of this kind. It has had predecessors, more or less closely connected with the society, but the new journal starts on more ambitious and more popular lines, and, though founded on the society's *Proceedings*, is intended to give a more general and exhaustive view of the geographical work of each month.

The Times, 3rd inst.

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No. 9, Conduit Street, Hanover Square, London, W.

MUD ARCHITECTURE. In my last communication* on Mud Architecture I referred to the Temple of Viracocha, at Cacha, in Peru. As the remains of this temple present more than one point of interest in connection with the subject, I here give an illustration of it [fig. 1]. The first consideration that attracts attention is the durability of the material. The temple was pillaged and ruined by the Spaniards on their first arrival, and it has served as a quarry since to a number of villages in the neighbourhood. It is now three hundred years since the Spaniards commenced the work of destruction,—during that time the mud walls have been left to the action of the elements as well as the hands of the despoiler, and they are yet erect, and standing to a height of forty feet. Possibly the earth or clay used for the adobes was of a peculiar kind, which may account for the preservation of the walls; but there are other instances of the great durability of mud walls which may be cited. Professor Sayce states that,—"The most perfect "remains of Pharaonic fortifications now existing are the fortresses of sun-dried brick "erected by Thothmes III. at Kobbân opposite Dakkeh, and on both sides of the river "at Semneh, thirty-five miles south of the Second Cataract."† A very little consideration will make it clear that durability never could have been much of a difficulty in the regions where mud was the building material,—for the simple reason that any damage could be so easily repaired. In the countries, again, where this manner of building had reached to what might be called architectural development,—which was the case in a large part of the East,—the surface was covered externally with glazed tiles, and the interior with stucco or plaster, and by these means the preservation of the walls was as complete as need be desired.

In the Paper on Mud Architecture it was explained that houses in the villages of Persia had a course of stones, or fire-burnt bricks, very rudely laid down, and about a foot or more high above the ground, on which the mud or sun-dried brick wall was constructed. The object of this was in case of water collecting by accident and softening the mud below,—an event that might bring the whole house down. So important was this detail in mud building that it is found to have been adopted in most places where that was the building material. This was the "good pair of shoes" in Devonshire "Cob"; and the belt, or "dado," of sculptured slabs in Assyrian palaces,—the walls of which were of mud,—owes its origin to this precautionary piece of construction.

The Peruvians seem also to have realised the necessity of this foundation,—which may be seen in the illustration,—where there is a base of stones 8 feet in height, and

* *The R.I.B.A. Journal*, Vol. III. p. 401 (28th July 1887). Mr. Simpson's first and original Paper on this subject was read before the Institute in 1887. It will be found in TRANSACTIONS, Vol. III. N.S., pp. 57–80, under the title of "Mud Architecture: Notes made in "Persia and other Countries."

† *The Ancient Empires of the East*, by A. H. Sayce, p. 9.—W. S.

5 feet 6 inches wide, on which the wall of adobes rests. This foundation seems to have been well put together, and might be called a particularly good "pair of shoes." The stone base in this case might be called "cyclopean," and there are numerous remains in Peru in which the masonry is described by this word. Cyclopean masonry naturally recalls Greece; and one of the ideas which suggests itself is, that if the Cyclopean walls of that country did not originate with mud building, the two must have been

Fig. 1.—The Mud Walls of the Temple of Viracocha, Peru.

intimately connected in early times. The instances given in my Paper on Mud Architecture, from Pausanias, where the towns of Mantinea and Eion are described as having been taken by the damming of the rivers, so that the water flooded the lower part of the mud walls, and they tumbled down, furnish sufficient evidence that mud was at first the material used in that country for defensive works. The Mantineans,—according to Xenophon,—when they afterwards rebuilt their walls, carried up the stone foundations to a considerable height above what they had been before, so as to prevent such a stratagem from succeeding again. These later stone substructions, the date of which is given as 371 B.C., might not be Cyclopean, but the previous walls, as Xenophon's description infers, were most probably of that kind of masonry, for Mantinea was a very ancient place. Mr. Pullan in his book,—*Eastern Cities and Italian Towns*,—describes (p. 143) the remains of a vast wall which he had visited in the Maremma, between Leghorn and Civita Vecchia, which he guessed roughly as extending round a circuit of ten or fifteen miles. At a number of places he was able to measure this wall, which was 20 feet in thickness, and 7 feet in height. The stones are rough, and untouched with a tool; from this Mr. Pullan considers that the work is neither Roman nor Etruscan. On reading his description, it struck me, from the proportion of width to the height of this wall, that it could not be that of a defensive bulwark which any people, however primitive, would be likely to construct; but by supposing that it was only the stone substruction of a mud wall, something like a reasonable explanation would be found. It must be understood that, owing to Mr. Pullan's rather limited exploration, nothing definite can be assumed in this case; I only suggest that we have here what was probably a combination of Cyclopean masonry and mud, which dates back to some early period.

I have now an example of mud architecture to refer to which is important: it is important in relation to the material, while at the same time it throws a new light on the architecture of Greece. When I wrote my first Paper on this subject I mentioned the Heræum at Olympia. In the recent explorations at that place this temple was found to be a mass of mud, and it was at first supposed that this had been deposited by the river. This surmise, however, had to be given up, and it was then suggested that the walls of the cella had been formed of crude brick, and their falling in accounted for the accumulation. When I wrote at that time, I understood that this theory was doubtful, so nothing positive was then affirmed regarding it. I have since come upon a statement putting it in a positive manner that the walls were formed of crude brick. As the book in which I read this did not appear to me to be sufficiently authoritative, the idea occurred to my mind that the question could be settled by very simple means. This was to discover if the stone base existed on which the crude brick wall had rested. The rule of this foundation, or "good pair of shoes," has been so general in mud building, that it may be counted upon almost as a certainty; and if it was found at the Heræum, no doubt would exist in my mind as to the character of the wall that stood upon it. At the British Museum Dr. Murray kindly produced the official account of the explorations,* and luckily it contains a photograph of the Heræum, showing what remains of the temple with the accumulation of mud removed. In that picture the plan of the walls is distinctly represented by two courses of stone, showing all round a base of about two or three feet in height. I doubt whether these two courses of stone will produce the same conviction on the mind of others as they do on my own; but from what I have seen, as well as from the knowledge I have gathered, they become witnesses carrying almost certain conviction that they were the foundation of mud walls. Had the walls been all of stone, and ruined by time, nothing but a miracle of chance could have left the level regularity of these two courses as given in the photograph. Look upon them as only a foundation, and their intention is explained.

Dr. Murray tells me that the German archæologists have now finally accepted the theory of the mud walls:† I understood that they did so from the mass of mud found on the spot. If they have no other evidence than that, I should say it is far from being quite satisfactory, and not to compare with what is given above. A gathering of mud might have resulted since the destruction of the temple from many causes; but the stone foundation shows the original intention of the builders.

If this theory of the walls is accepted, more than one inference may be drawn from it. The Heræum was no doubt an ancient temple, and if its walls were formed of mud, we may suppose that this was the material of which other temples were constructed at an early period, for we can scarcely believe that this structure at Olympia was quite exceptional. We have here a new light thrown on the origin and development of the Greek Temple. Up to the present we have heard of little except the wooden origin of the architecture of Greece, but now a new element will have to be considered. It may lead to new explanations, or features that have escaped observation may now be seen to have served a purpose that could not have been previously understood. Let me mention a single example: the sloping jambs of Greek doors can have their origin explained without deriving them from Egypt or elsewhere. The batter given to mud walls seems to give a very satisfactory solution of them in Greece as well as in other countries. Another inference to be drawn from the mud walls of the Heræum is, that if the walls of temples were built with that material, before stone or marble came into use, the walls of houses would at some distant date have been the same; from this—and not forgetting that town walls were of mud—we

* *Ausgrabungen zu Olympia*, iii. pl. 1–2.—W. S.

† It should be understood here, as in my original Paper, that crude brick is included under the term "mud."—W. S.

may conclude that it was more extensively used for structural purposes in Greece than has been previously supposed.

At the date when the walls of the Greek temple were formed of mud, we may suppose that the pillars and architrave were of wood: Pausanias mentions the one wooden pillar [Pausanias, v. 16] still existing at his time in the Heræum. In Greek architecture the wood occupies by far the most important place in its origin; the mud counts for almost nothing. But when we consider that style which has become known as Sassanian, none of its forms appear to be derived from wood. It is essentially non-trabeate. Instead of columns we have walls; and the covering is either a dome or a barrel-roof. As examples, I may mention the palace at Serbistan as illustrating both of these forms, and the palace at Ctesiphon as a good instance of the barrel-roof.* These palaces were not built of mud, but the constructive forms were derived from it. This has been the principal building material in Mesopotamia from the earliest times, and it is the same at the present day. We have every reason to believe now that these forms we are considering have existed in that part of the world from a very primitive period, and are essentially of mud origin. I think, from what I saw in Persia, that such has been the case, and I understand it is the same in Central Asia, both mud-building countries, and they have been so in the past. In both, the dome and the barrel-roof are found. From this particular method of building the domed Mohammedan architecture of India was derived; to the same origin is due the Saracenic architecture of Western Asia and Africa; and I think it is now accepted that the dome of the Byzantine style has sprung from the same source. We have thus over a very wide geographical space a well-defined character of architectural construction which has produced some of the most beautiful architecture in the world; and yet its birth can be traced back to one of the most simple and primitive materials.† The wooden origin of Greek trabeate architecture is too well known to require a single word of explanation from me. These are the two types of construction which have descended to us from the past, and which have had the most powerful influence on the architecture of Europe even down to the present day. Their lineage and history have been widely separate; their principles of construction are entirely different; the forms which are produced by each are unmistakable to the eye; and both have evolved their own schools of ornamentation. Long ago the two types met, and were wedded; the union has continued to the present day, and even now, although intricately combined, no one with an experienced eye will have the slightest difficulty in distinguishing what belongs to the one or to the other.

The title adopted for this type of construction has been, I am aware, looked upon as a doubtful one. Professor Kerr, in the discussion of Professor Aitchison's Paper on "Byzantine Architecture" last Session, in referring to my Paper and its bearings on the Byzantine style, put the case very nearly as I should have done myself. He said that the title "Mud Architecture" was not to be taken as a term of reproach, but as one which indicated a mode of construction *sui generis*. I employed the word as expressing exactly the material I had seen used for building with in Persia and other places in the East; it was explained in my Paper that it included mud laid on a wall in mass, and sun-dried bricks, the two being generally employed on the same building. I also had in my mind the term "Wooden Architecture," which, although it includes the most primitive forms, no one would object to, owing to its being the source from which trabeate architecture sprang. The French have the word *pisé*, but the plain English word is evidently more suitable for our language. "Concrete"

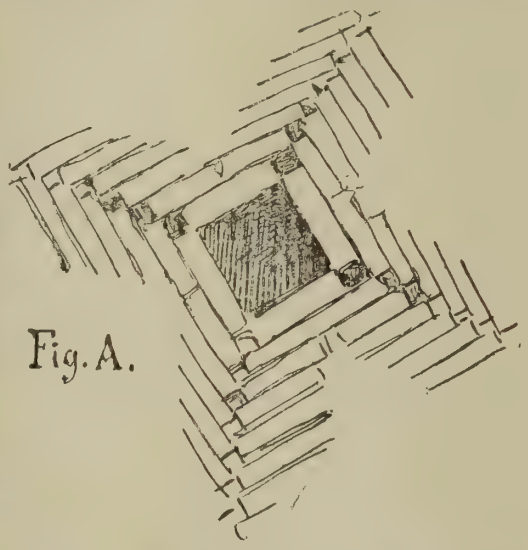
* See the Paper by Mr. R. Phené Spiers, F.S.A., on "Sassanian Architecture" in TRANSACTIONS, Vol. VII. pp. 44–5–7 and 50–1.

† There is a belt of desert, well known in physical geography, extending from the Great Sahara eastward to Central Asia and China. This includes Egypt, Mesopotamia, Persia, and Central Asia, all mud-building countries. Owing to this desert character of the soil, wood is scarce; and it is suggestive of the climatic influences which prevented the development of trabeate construction, and in doing so produced the dome and the barrel-roof.—W. S.

has been suggested, but that word may mean so many substances; it fails to define the exact thing that is intended. We might say "terraqueous," which would be strictly correct, but the mere mention of it is enough; and I doubt if any combination of Latin or Greek terms will be found to take the place of the one I have used. The real test may be put in this way: Can any one suggest a better?

I add a sketch [fig. 2] of part of a dome which I made in a Persian caravanserai. It was a new building, so it may be taken as representing the constructive method of the present day. My impression is that the bricks were burnt, but the same arrangement, I suppose, would be followed in the case of sun-dried bricks. The sketch is slight, still it may be sufficient to indicate how the bricks were arranged. The sketch represents one quarter of the dome, which is square at its base, but becomes round as it

Fig. 2.—A Modern Building in Persia.



ascends. The absence of pendentives is a point of some interest. As I was told that centering was never used in Persia, I presume that this dome was constructed without it. The small sketch marked A shows the summit of the dome, and how the bricks are arranged at that particular part. This chamber was the sort of place I had to put up at and sleep in while travelling in Persia; there might be from twelve to twenty of such chambers, each one exactly the same as the others, in one of these caravanserais.—William Simpson.

THE DUNDEE INSTITUTE.

Mr. Wm. Mackison's Presidential Address.*

Since the inauguration of the Victoria Art Galleries the successive sessions of the Dundee Institute of Architecture, Science, and Art have been opened within these walls. The Council of the Institute have esteemed this a very great privilege indeed, more particularly as the Fine Art Exhibitions have taken place at times suitable for this purpose. The opportunities thus afforded the members and their friends of examining under most favourable circumstances the fine works of art which have adorned the walls of these Galleries have always proved sources of profitable enjoyment. The Council were anxious that this meeting should be held, as formerly, within these rooms, but on account of the immense labour and time required to procure and to so appropriately place such a large number of varied exhibits for this the "Old Dundee" Exhibition, opened so auspiciously last week, it was impossible for us to have this conversazione at an earlier date. I am sure, however, you will all admit that the delay thus occasioned has been amply warranted by the deeply interesting and intensely fascinating exhibits by which we are surrounded. Although in this Exhibition we do not have so many works of

* Extracts from an Address delivered by Mr. William Mackison [*F.*] at a Conversazione of the Dundee Institute of Architecture, Science, and Art, held in the Victoria Art Galleries, Dundee, on the evening of Thursday, 29th ult.

living artists as in former years, still we are in the midst of an extensive and valuable collection of ancient articles, curios, relics, old paintings, and works of art illustrative of old Dundee, and commemorative of many of its departed citizens and outstanding personages, who have so ably played their part in raising our city to its present position. We must acknowledge that within these Galleries there is a collection not only unique in its conception, and rare, varied, and characteristic in its exhibits, but also one which is fitted to entertain, interest, and instruct. Nay, more, we have a splendid illustration of what can be done by the indomitable enterprise and perseverance of Dundonians of to-day. All praise is due to those gentlemen who have brought this magnificent Exhibition of " Old Dundee " to such a successful issue; and, on behalf of the Institute, I now desire to convey to them our best congratulations and thanks, and to express the sincere hope that the citizens will unite heartily in their efforts to make this Exhibition an entire success. In stepping out upon the ninth year of the existence of our Institute, I am glad to announce that it moves steadily forward. The success which has marked its past history has not only exceeded the expectations of its promoters, but presents encouragements for a still more prosperous future. The earnest and well-considered efforts of our past Presidents and Councils, the continued sympathetic co-operation of its members and friends, and the steady and valuable support of the local press have one and all combined to promote the welfare of the Institute.

The recent alliance of our Institute with the Royal Institute of British Architects has already induced a number of the young men in this district who have entered the architectural profession to commence a systematic course of education tested by progressive examinations, in order to qualify themselves for being registered as Probationers, Students, and Associates respectively of the Royal Institute of British Architects. Ten candidates have already passed the Preliminary Examination and are registered as Probationers. Whilst these are preparing themselves for the Intermediate Examination to be registered as Students, I trust many others will follow their example and come forward for the next Preliminary Examination. These courses require very diligent and thorough study, and are designed, by careful preparation on the proper lines, to stimulate independent thought, and to lay a foundation of artistic and scientific knowledge on which to cultivate any natural aptitudes or gifts. The Royal Institute of British Architects bestows annually many valuable prizes and studentships, and as its TRANSACTIONS are now to be found in the Library of our Institute, those of our members who devote their attention especially to this department will have a better opportunity of studying the best principles and most recent practice in the art and science of architecture. In passing, I may just remind you that the Soane Medallist of the Royal Institute for 1849 was our esteemed first President, Mr. James Maclaren, and that when I was elected a Fellow of the Royal Institute of British Architects in 1865, the late Mr. David Bryce, of Edinburgh, was at that time the only other Fellow in Scotland. You will thus observe that the connection of Dundee with the Royal Institute is not one of yesterday. Our recent alliance will, I anticipate, not only stimulate our young men in their work, but also open up valuable channels for their future advancement and success.

This session eight prizes have been offered of a varied character, and our Institute Council will be disappointed if there is not a hearty response. An additional prize has this year been offered for the best landscape in oil, with the view of inducing a greater number of the ladies to take part in the competitions. Although the departments of photography and modelling in last year's competitions did not receive the attention expected, there was, however, an encouraging improvement in the architectural and antique departments, in the latter of which a young lady was for the first time a successful competitor. It will, no doubt, also be encouraging to some here to know that one of the young gentlemen who was successful in the competition for the best architectural measured drawing has been offered a liberal commission by an Edinburgh architect for a duplicate of his drawing of the Royal pew, Scone Church. I would strongly commend these competitions, knowing well that every one who competes will, by the practice and experience thus obtained, be amply rewarded, although not honoured by securing the prize. The lectures have all along been of a most diversified, instructive, entertaining, and practical kind, many of them being fully illustrated by diagrams and limelight views. The excursions to places of interest still continue to form a fruitful source of attraction, instruction, social intercourse, and recreative study. . . .

We have cause for congratulation that so many ladies are now enrolled as Associates, and I trust their number will increase, as they have all along taken an interest in the work of the Institute; and we need not be surprised at this, when we remember that ladies are now everywhere found engaged in the pursuit of higher education. In this connection it may be interesting to note that the architect of the " Women's Buildings " in the great Chicago Exhibition is a lady. The local Association for the Promotion of Technical and Commercial Education, on whose Council the Institute is represented, has done and continues to do excellent work in guiding and encouraging systematic courses of study.

The Dundee University College is, through its able and energetic Professors, making its influence felt in our midst, and, along with the other educational institutions of our city, gradually raising the standard of education, and creating a desire for more advanced and thorough knowledge. The present facilities for acquiring knowledge should therefore be taken full advantage of, as success in any profession or business is now becoming less and less a matter of chance, and more and more a matter of skill. In considera-

tion of the attention presently being given to the question of slum dwellings it may not be inopportune for me to state that during the twenty years since the passing of the Dundee Improvement Act I have been engaged in clearing out numerous areas of Old Dundee, with their narrow streets and closes, thickly studded, dilapidated, high, dingy, insalubrious, overcrowded and insanitary buildings; and in laying out and forming new and spacious streets, and building lots upon which improved modern buildings have and are still being erected. This work has been followed by a marked improvement in the appearance and health of the town, and by a large reduction in the death-rate. . . . The improvement of slums is a difficult and complex process, requiring careful consideration. There are deeper reforms that must go along with the shutting up or remodelling of the slum dwellings, and the providing of good and suitable houses for the working classes, and these must take effect, not only on the habits of the people residing in such localities, but also on their moral and spiritual life. It is not an unusual thing to find single-roomed houses side by side, having common external arrangements, but yet internally quite dissimilar as regards the tidy, smart, and comfortable appearance of the one as compared with the filthy, slovenly, and miserable condition of the other. Now, why is this so? Simply because of the difference between the habits and characters of the respective occupants. . . . As this is an age of rapid progress and continual change, architectural works are consequently affected in many ways. New materials are coming into use; the applications of existing materials are being varied and multiplied; new forces and agents are being developed; and the tastes and methods of the people are rapidly changing. All these combine to tax the knowledge and ingenuity of the architect, the ability and skill of the tradesman, and the taste and originality of the artist. Surely, then, this is a strong reason why we should put forth our most strenuous efforts to advance the aims and objects of our Institute.

W. Mackison.

*** A Paper is to be read to-night before the Dundee Institute by Mr. A. H. Millar, F.S.A. Scot., entitled "Curiosities of Architecture in "Dundee," which is to give a consecutive history of the architecture of the burgh from early times until the present day. An abstract of the Paper, which has just been received, has for its opening paragraph the following interesting information:—There is a widely-spread notion prevalent on both sides of the Border that Dundee is a mere burgh of yesterday, a place which has risen into importance during the present century, and which has no ancient history worth speaking of. This delusion has probably arisen from the fact that the increase of Dundee through the development of her commerce and manufactures since this century began has been phenomenal and is almost without parallel in the Kingdom. The population of Dundee has more than doubled itself within the last forty years, and though its inhabitants now number over 160,000, this very fact suggests to the superficial observer that it must have been of comparatively little account in the olden time. Yet there is ample proof that Dundee was a centre of commerce when Scottish trade was in its infancy, and that it was regarded by the Sovereigns of ancient times as one of the most important burghs on the east coast of Scotland. In proof of this it is sufficient to state that documents dating from the close of the twelfth century are now preserved in London, which show that a regular trade was carried on between Dundee and London at that early date. Without wandering into the written history of Dundee, the purpose of this lecture is rather to indicate its existence for many centuries as shown by the architectural remains of former days, to give, in short, a sketch of the history of Dundee in stone and lime.

CHANGES OF ADDRESS.

[See *The R.I.B.A. Kalendar*, 1892-93.]

FELLOWS.

1880 Burwell: Frederick William, 10, Oak Street, Hawthorn, Melbourne.

1880 Stent: Sydney, M.Inst.C.E.; Good Hope Chambers, Cape Town.

ASSOCIATES.

1887 ‡Fell: Richard Matthew Dudley, Nikan Bay, Havelock Marlborough, New Zealand.

1888 ‡Hornblower: George, 20, Fitzroy Square, W.

1865 †Hudson: John, 36, Romford Road, Stratford Green, Essex.

1881 Norman: Arthur Charles Alfred, Kuala Lumpor, Sĕlângar, Straits Settlements.

HON. CORR. MEMBER.

1892 Clason: Gustav, Professor of Architecture in the Technical High School; Kammakaregatan, Stockholm.

Addresses Wanted.

Audsley: George Ashdown [*F.*].
Ballard: William Washington [*A.*].
Barker: John Theodore.
Clare: Edwin [*F.*].
Knowles: George [*F.*].
Beale: Robert John [*A.*].
Cazalet: Charles Harvey Hinrich [*A.*].
Chastel de Boinville: Charles Alfred [*A.*].
Chastel de Boinville: William [*A.*].
Hooker: Walter [*A.*].
Hudson: Walter Merceron [*A.*].
Martin: William James.
Maylard: Charles G. [*A.*].
Mayo: Ernest Alfred [*A.*].
Peter: John [*A.*].
Roberts: Thomas Price [*A.*].
Fiorelli: Cavaliere Giuseppe [*Hon. Corr. M.*].

Erratum.—In the last issue, p. 105 *ante*, first col., in the address of Mr. F. J. Chambers [*A.*], for 186, Bedford *Park*, read 186, Bedford Hill, Balham, S.W.

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THE JOURNAL OF PROCEEDINGS OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

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THE PRESIDENT'S ADDRESS TO STUDENTS:

ON SOME RESPONSIBILITIES OF THE ARCHITECT.

Delivered by Mr. J. Macvicar Anderson, Monday, 16th January 1893.

GENTLEMEN,—

LIFE is full of responsibility. If this be true of human life in general, it is emphatically so of the department which most concerns us—architectural life. Before entering on an undertaking the wise man counts the cost, and so it behoves you, who are about to enter on the career of the architect, to realise at the outset the responsibilities that will beset your path. Forewarned is forearmed. It is from no desire to deter you that I now crave your attention, for I hold that—provided you possess the necessary natural qualifications—the pursuit of architecture is one of the most delightful, as well as useful, avocations in which you can engage; but I have thought that to you, whose experience is as yet for the most part theoretical, it might not be unprofitable to learn something of the responsibilities you will be called on to discharge, from one who has had many years' practical acquaintance with them.

Training and Study.

The primary responsibility, however, which meets you is one of which you are yourselves competent to judge without much assistance or guidance from others. The preliminary to all life-work is training. What is essential in other professions is equally so in architecture. There are those who tell you that artistic instinct is *the* essential qualification, and that if you have that, technical training is comparatively of little consequence. Without for one moment discounting the paramount importance of artistic endowment, to which I may refer later on, let me warn you against being misled by a doctrine so delusive. True, there have been, and no doubt will be, exceptionally gifted individuals who seem to grasp knowledge by intuition and to leap in a single bound over the laborious methods which have to be pursued by ordinary beings. But to rear on the basis of such rare exceptions, arguments applicable to members of a large profession, is as absurd as it is misleading; and at the threshold of your career you may be absolutely certain that there is no royal road to the acquisition of knowledge, and that the only stable foundation on which to build the superstructure of a successful life's work is laborious and enthusiastic study. Hence it devolves on you, as students of architecture, to prepare yourselves for fitly discharging the responsibilities of life by availing yourselves now of such educational

advantages as lie within your reach. Until recent years such advantages were hard to find, and it was mainly—if not solely—by picking up casually such knowledge as could be acquired during apprenticeship in the office of a practising architect that the student could educate himself. Now the case is different, and it is, I apprehend, in some measure attributable to the freedom of intercourse with foreign nations inaugurated during this century that such progress as we see has been attained. In France and Germany, as you are no doubt aware, the architectural student has to pass through a regular course of theoretical teaching in the school or the university. The same system is being adopted in America. The curriculum of the Architectural Association, as well as those of University College and King's College, indicate a distinct tendency to adopt—at all events in a modified degree—a similar procedure here—departures which thoroughly deserve all the support and encouragement we can extend to them. I do not desire that the practical training which can only be acquired by contact with actual work in an architect's office should be forestalled, but it is greatly to be desired that such training should be accompanied by theoretical and technical teaching such as is to be found in the courses to which I have referred. In the world's labour one day in seven is reserved for rest. In the routine of apprenticeship* it would be well were one day in seven also set apart for study outside of and apart from office work, and that the office hours were so arranged for pupils as to render it practicable for them to take full advantage of evening classes in the studio and the lecture-room, without unduly taxing or injuriously affecting brain-power. That a generous spirit now pervades the profession, exhibited in the desire to promote the education of students, is unquestionable. The establishment of teaching centres, not only in the metropolis but in the provinces, demonstrates this.

I have already indicated that the development of this spirit may be to some extent traced to international intercourse; but I cannot doubt that it is more directly attributable to the action taken in recent years by the Royal Institute of British Architects, as the chartered representative of the profession, in inaugurating and establishing a system of Examinations; for it is a fact, whether expressly stated or not, that the curriculum of each teaching body is so framed as to meet the requirements of such Examinations. Now if the Examinations of the Institute had done nothing else, it must surely be admitted by all, be they advocates or opponents of the system, that to have in a few years produced such a result is a distinct gain to the profession, the possibilities of which in the future it is difficult to forecast or to limit. As, by the enlightened policy of provincial societies, educational facilities are provided, the whole country will be gradually embraced in an educational network the meshes of which will be occupied by the embryo architects of the future, who will thus enjoy educational advantages which were not at the disposal of a former generation. Hence it seems to me that the Royal Institute, in awakening in recent years to the responsibility of providing education by creating an examining body and thus stimulating the organisation of teaching bodies, has conferred lasting benefits on the profession.

Having so far discharged our duty, we may fairly call on junior members and on students to fulfil the responsibility thus devolved on them by embracing the educational privileges which are now brought within their reach. Do not imagine that you will thus weaken the artistic instinct with which you may be endowed. The result of diligent study preparatory to examination is not in any sense likely to cramp or retard artistic development, but to equip you with knowledge which it is difficult otherwise to obtain, and without which no one would now be

* In the forms of Articles published by the Institute it is stipulated "that with the object of enabling "the pupil to qualify himself for passing the Exa- "minations for Studentship and Associateship," the Principal "shall and will allow the pupil such absence "as he, the Principal, shall deem reasonable for the "purpose of attending Lectures, Classes of Instruc- "tion, and the said Examinations." See *The R.I.B.A. Kalendar* 1892–93, p. 265 and p. 268 for these forms, which were approved by the Institute in 1890.

worthy of the name of architect. Let me, then, press on you the primary responsibility of qualifying yourselves for your life-work by entering on the educational courses and preparing for the educational test, which have been established with a view to your welfare. Quite recently I received a request from one who a few years since was a pupil of my own, and who is now practising in South Africa, that in order to promote his professional status I would propose him as an Associate of the Institute, accompanied by the incidental intimation that he was—I suppose by way of further fortifying his position—about to be married. I had to inform him that the only way to become an Associate was to prepare himself by study for the Examination, and I suggested that he might usefully turn to advantage the interesting position he occupied by spending his honeymoon in a visit to the old country for the purpose of passing the Examination. I have been tempted to mention the incident because of the sequel, for he has responded by asking me to send him a list of the books he should study and the particulars of the Examination. The spirit thus evinced in a resident of a far-distant colony is creditable, and I venture to commend it to your favourable consideration, at whose door the educational privileges lie, which he can only embrace subject to serious difficulty and sacrifice.

Commencing practice.

Let us now pass from the responsibilities of the student to those of the architect, and assume that you have, after years of study and preparation, attained the goal of having your first commission confided to your care. I have still a vivid recollection of the emotions which this event creates; the sense of pleasure derived from the reflection that at last one is freed from restraint; the enthusiasm with which one anticipates the fulfilment of long-cherished hopes; the delight with which the youthful mind revels in the feeling that now has come the opportunity of teaching the world something worth learning! All such emotions are natural, and incidental to the freshness of youth and the first sense of emancipation from thraldom, and, although subsequently sobered by experience, constitute a bright era of hope and expectation that in after life one recalls with pleasure and would not obliterate. I shrink, therefore, from uttering anything that might detract from the hopeful anticipation with which you rightly regard this event. Only one word would I venture to interpolate. It is natural that in the first blush of actual experience the feelings I have depicted should predominate, and that you should indulge with unstinted satisfaction the prospect of crystallising your long-cherished fancies. But remember that this is not all. The indulgence of your fancy must be duly leavened by consideration for the fancy and wishes of him who has given you the opportunity you so welcome. I know by experience that in early years the tendency is—I admit, not unnaturally—to consign this consideration to a subordinate place, or not to regard it at all. Do not forget, mid the exuberant joy of youthful freedom, or the justifiable pride of a first success, that your responsibility is to your client; and that you are bound, while indulging your idiosyncrasies, to do so in giving artistic and practical effect to his requirements and in promoting his interests. Should you ever entertain doubt in respect to the soundness of your advice, a good test will be to ask yourselves whether, were you occupying the position of your client, you would yourselves act in conformity with the advice you are giving him.

Architectural Design.

You will now have entered on the part of an architect's experience in which unquestionably is to be found the most absorbing interest and the keenest pleasure—the creation of design. This is the most elevating sphere in which you can work, because it opens the field for the exercise of your inventive faculties. Call it instinct—call it genius—call it what you may—here is educed and exhibited what makes the architect, and without which he is not an architect at all, the spirit of the artist. Cherish this native inspiration. You cannot create it by human agency. You cannot destroy it. But you can misapply it, or you can by discipline and control make it the medium of conferring lasting benefit on your

day and generation. Responsibility attaches to every faculty, every talent we possess, and for the cultivation and use of this inspiration—the indispensable, as it is the noblest, qualification of the architect—you are responsible to Him who endowed you with it. Let this ennobling consideration inspire your work! When I refer to artistic design, I desire not to be misunderstood. To apply it to the design of the elevation only is unjustifiably to restrict its sphere, for the plan offers the primary, and perhaps the most important, field for the display of artistic skill. I must not dwell on this, having on a previous occasion specially treated the subject of the Art of Planning; but I venture to express the hope that I then succeeded in demonstrating the conviction I strongly entertain, that no part of an architect's work, from an artistic point of view, is more important than the study of the plan. I have referred to the responsibility of regarding your client's wishes and studying his requirements. Let me here say that to do so is not only a duty, but it is often the means of imparting to work its highest interest. To embody in design one's own fancies is comparatively easy; to combine one's personal proclivities with the requirements of a client is frequently most difficult. Difficulty creates interest; to succeed in spite of it is always enjoyable, and imparts to any work a zest which it would not otherwise possess.

Working Drawings. The general design approved, you will have to proceed with the preparation of working and detail drawings, in which you will find the continued opportunity for the exercise of creative power. Every part of a building drawn to a large scale, and every detail drawn full size, form subjects of constant and engrossing study, a true idea of which can only be acquired by experience. Apart, however, from the interest of design embodied in such drawings, it must never be forgotten that they are in their character and object totally different from preliminary sketches. The latter are prepared for the purpose of illustrating the design, and when once this has been embodied in the working drawings they may be said to have served their purpose. Working drawings, on the other hand, are records on the basis of which the interests of others depend. From them the quantities are measured. Upon them the contract is framed. Hence it is obvious that you will be responsible for making such drawings clear, precise, definite, practical. Anything like sketchy indecision admitting the possibility of a twofold interpretation—any contradiction between one part and another, or one drawing and another—anything in the nature of slovenly draughtsmanship—these and such-like careless defects are unpardonable. Working drawings are not worthy of the name unless they are drawn with decision and accuracy, consistent with one another, finished in ink, coloured, and reproduced in duplicate. You may naturally think that this goes without saying; but experience proves the reverse. It is because I have not infrequently seen working and detail drawings, prepared by so-called architects, which I have regarded as discreditable and unworthy, that I venture to urge upon you what I consider will be your responsibility in this respect. It is simple injustice to those whose interests are affected by them that working drawings should be other than unmistakably clear and definite. This does not necessarily imply that they must be devoid of artistic feeling: I have seen many, admirable in respect of their succinctness, and charming in respect of artistic draughtsmanship. Let me say that where practicable it is most desirable that detail drawings should be prepared prior to the quantities being completed, in order that there may be no room for misconception as to the amount of work intended and the labour on it. I am well aware—only too well—that the rush with which much modern work has to be prepared—greatly to be deprecated—often renders this impossible; but whenever it can be done it should be done, for the advantages to all concerned are obvious.

The Specification. Following on the completion of the working drawings, your next responsibility will be the preparation of the Specification, the proper execution of which is of the greatest importance. Allow me to press upon you, from experience, the enormous advantage of writing your own specifications. No one can so

clearly describe what he wants as the architect himself, and there is no valid apology for a young man failing to discharge this essential part of his duty. I always did so, until the pressure of work rendered it impossible to continue the practice. The work, I admit, is dry and uninteresting as compared with design and drawing, but it has an interest of its own, as all work has when honestly engaged in. Besides, it is no excuse or apology for the neglect of a part of our work, that it may not be so engrossing as other parts. That which is most unpalatable is frequently most beneficial, and a well-disciplined mind will take the bitter with the sweet and strive to do all alike well. To write your own specifications is to be familiar with every detail in a sense in which you cannot otherwise be. On your visits of inspection during the progress of the work, you will find yourself master of the situation, with every detail at your finger ends, in place of being dependent on others or constantly requiring to be refreshed by reference to a document with which you are only partially familiar. A specification, to be of use, must be full and clear, describing in terse language every branch of work, and leaving no room for doubt in the interpretation of its clauses. It should also have ample marginal notes for facility of reference. Much time will thus be saved. To write a specification is not artistic, but it is instructive, work; and involves much consideration in respect to the nature of materials and alternative methods of construction. No one can properly write a specification who does not possess some practical knowledge of the building trades, and the materials employed in each. Hence to leave the preparation of the specification in other hands when you can do it yourselves, is deliberately to abandon the means of keeping yourselves in touch with much of the scientific progress of the day in its relation to architecture. Never, therefore, be induced to relinquish the personal discharge of this responsibility, so long as it is by any means possible to accomplish it.

The "Quantities."

With the completion of the drawings and specification other personages come upon the scene, in relation to whom your responsibilities will be extended. The appointment of the quantity surveyor will generally rest with you, and you will find it of the utmost importance to secure the services of one who, having acquired a thorough practical training, is conversant with the details of each trade, and who is quick and accurate. These qualities, combined with experience, will alone inspire the necessary confidence. The customary practice of including the charges of the quantity surveyor in the builder's contract and account does not commend itself to my judgment. For many obvious reasons, it would be better that they should be charged direct to the client and paid direct by him, subject to the approval of the architect. Need I add that the charges of the quantity surveyor, whether made direct or embraced in the contract, should, in every instance and without exception, be entirely independent of the charges of the architect. For the architect to participate, in any form whatever, in charges made by another, instead of being made direct to his client, would be alike unjustifiable and dishonourable. The practice with some architects is to take out their own quantities—a practice which very generally prevails in the provinces, though comparatively rare, I believe, in London. That such a custom is remunerative goes without saying, and it is justified on the ground that the necessary dissection of the building in the bills of quantities makes the architect more familiar with every detail than he would otherwise be. For my own part, while there is, of course, nothing dishonouring in the practice to those who care to engage in it, I consider that it is not in the least degree necessary on the ground stated, and that, in the case of one aiming at a purely architectural practice, it is not desirable. If an architect is not sufficiently conversant with every detail after having designed the building and prepared the working drawings and specification, he must be obtuse indeed. You will find quite enough to engross your time and thoughts in what—to my mind at least—is the more legitimate domain of architecture.

The Contractor. To the contractor who engages to carry out your designs in accordance with your working drawings and specification, you will stand in a relation of undoubted responsibility. You will be the medium by whom arrangements between your client on the one hand, and the contractor on the other hand, will be made. You will thus occupy the position of an agent, and cannot be relieved of its responsibilities. You will have to see that the contract is fairly and honourably carried out by both parties to it—protecting your client, on the one hand, from any attempt at evasion by the use of faulty materials or defective workmanship, and protecting the contractor, on the other hand, from any tendency to deprive him of legitimate remuneration for work properly executed. This dual responsibility you will only be competent to discharge by possessing such practical knowledge of materials and workmanship as will enable you to judge what is good and what is defective, and by uniformly maintaining an attitude of independence and integrity. I have met with clients who have not hesitated to condemn contractors as a class whose habits are predatory and who live on robbery, forgetting that there have been those in their own position to whom such strictures, if fair in the one case, would be equally so in the other. That such sweeping condemnation is unjust I need scarcely say, and your responsibility will sometimes consist in protecting the honourable client and the honest contractor from its injurious effects. My experience of life has been that one class is morally no worse and no better than another. Human nature is much the same, regardless of external circumstances. Morality is an individual, not a class, distinction. It has been my fortune, and I trust it may be yours, to meet with but few clients and few contractors whom I could regard with feelings other than those of respect and confidence. The large majority have been men whose gentlemanly courtesy, on the one hand, and whose admirable work, on the other hand, have reflected credit on themselves and inspired confidence in others.

Conduct of Works. In superintending the execution of your designs you will find ceaseless pleasure, for there is a singular fascination in watching the gradual development of your ideas and their translation into a material and durable form. You will, if you care for your work, experience regret—as I have often done—that you are unable to live on the works, as the monks of old did, personally judging of each feature and detail in the position it is to occupy. Seeing that this is impossible in modern practice, it will be necessary for you to have a resident representative or clerk of works. In the selection of this official the greatest care and circumspection should be exercised. Practical experience, moral integrity, and tact are indispensable qualifications. Once find a man on whose honour you can rely, and whose efficiency has been demonstrated, part not with him if you can help it; he is invaluable, and worthy of being regarded as a friend indeed. But your responsibility will in no way be diminished by reason of your having such a local representative, for without periodical visits of inspection it would be impossible that you could attest that the work had been properly executed, or that you could append your signature to documents certifying that the contractor is entitled to payment. To sign a certificate should never be regarded as a matter of form; it is, on the contrary, a serious responsibility, which your client will rightly expect you to discharge with fidelity. It is satisfactory to all concerned when the final certificate represents no more than the balance of the contract, and you should regard it as a responsibility to do all in your power to attain this result. In the case of a new building you will experience no difficulty, provided changes are not made in the contract drawings; but in the alteration of an old building there is more room for uncertainty, and therefore the more reason for circumspection and foresight. Architects are often censured for incurring increased cost, when it is really attributable to changeableness on the part of clients who will not be controlled, and who, although willing enough to embark in variations, do not always display corresponding elasticity in paying for them. Hence you will find it well not too readily to sanction variations

which will involve additional cost, and not to encourage erratic clients to entertain them. An architect should strive to achieve a reputation not only for designing good buildings, but for completing work entrusted to his care without any increase on the amount of the contract. In superintending work, knowledge of materials and workmanship is essential, but knowledge of men, and tact in exercising it, are also invaluable qualities. Firmness combined with tact and courtesy will educe willing and cheerful compliance with your instructions, where mere bullying—too frequently resorted to—will only lead to opposition and induce contempt.

Responsibilities of Neighbours.

Besides those I have mentioned, there are others to whom, in practice, you will occupy a position of responsibility. I cannot refer to all. Take one as an illustration. Most of you will in due course be called on to build in London, and you will in that event have to deal with the complicated Acts of Parliament controlling Metropolitan building and specifying the relative obligations and privileges of building and adjoining owners, for one or other of whom you will have to act. To rightly interpret Acts of Parliament is not always easy, and if I may venture to say anything so heterodox, I fancy difficulty is occasionally experienced even by those whose official duty it is to enforce them ; but there are, I think, certain general principles which should always inspire our responsibility. Building and adjoining owners, whoever and whatever they may be, have one common characteristic—they are neighbours. Many centuries since the question was asked, "Who is my neighbour ?" It would be well were the spirit which inspired the reply more frequently found to pervade the negotiations between those neighbours with whose responsibilities architects are sometimes concerned. Too often is the building, or the adjoining, owner, as the case may be, regarded as one whom it is well to pass by unheeded, one whose interests are opposed to our own, one who if he has the chance will take advantage of us, and one, therefore, of whom we are perfectly justified in taking advantage. I do not draw a picture that experience does not justify. Who has not heard of work having been pushed forward to completion with undue haste, or in the dull season, in the hope that, once done, it will remain, whether it inflicts injury to a neighbour or not ? To designate such procedure as sharp practice is to use too mild a term ; it is dishonest, dishonourable, and worthy of all reprobation. Apart, however, from its immorality, it is stupid. Honesty not only commands the approval of conscience, but in such matters it is the best policy. You are much more likely to get what you want from a neighbour by approaching him in a straightforward spirit, treating him with frank confidence, and asking his permission to deal with joint property in the manner you wish, than by unworthily trying, directly or indirectly, to take advantage of him. Do as you would be done by, is the motto of the Christian and the gentleman which I commend for your invariable adoption when discharging your responsibilities in connection with the interests of those who are neighbours.

Practice and Art.

Now it may have occurred to you that in regard to some of the responsibilities of the architect to which I have referred, it is difficult to trace any direct connection with Art. The drafting of a specification, the arrangement of the conditions of a contract, the adjustment of differences between your client and the contractor, the treatment of the rights of your client in respect to his neighbour ; or, again, the provision and arrangement of sanitary appliances, or the endless correspondence on mere matters of business which occupies so much time—these and other matters of a similar nature cannot by any stretch of imagination or any exercise of ingenuity be brought within the category of artistic work. Yet these are unquestionably responsibilities the discharge of which properly falls on the architect, and the neglect of which involves the necessary sequence that he fails in his duty to his client. Is it, then, true that the avocation of the architect is a purely artistic one, and that such matters as those which I have just specified should be relegated to the surveyor or the engineer ? If so, then much of what I have said to you of your responsibilities is false

teaching. But I appeal to common sense—I appeal to universal experience—nay, more, I appeal to the practice of architects who are undoubted artists, to demonstrate that the assumption is unfounded. I have, I hope, said enough to satisfy you that I consider your noblest and highest responsibilities will be found in the development of your artistic faculties in design. This is indisputable. To design in truth, purity, and with artistic feeling, is unquestionably the most elevating attainment to which you can aspire, success in which will constitute the keenest pleasure you can hope to experience in your professional career. This is the most important part of the architect's work, but to assert that it is all is deliberately to close the eyes to patent facts in the vain effort to establish as truth a purely visionary theory.

Gentlemen, in this necessarily brief survey I have touched on some only of the responsibilities which you will be called on to discharge in the practice of your profession. Others will occur to you on which I might have dwelt had time permitted. One, however, remains, reference to which I dare not omit—your responsibility to yourselves. In this, after all, is to be found the key of the whole position. Be true to yourselves, and you cannot but be true to others in every relation of life. Truth must and will prevail. Enthroned in the heart, it will find outward expression through the intellect in design, and through the courtesies of life in practice. If true to yourselves in the earnest preparation for your career by diligent study and laborious research—if true to yourselves in the firm resolve to develop to the utmost those faculties with which you may be naturally endowed—if true to yourselves in the lofty ambition to consecrate your powers to the promotion of art and the benefit of the community, you will not only be true to all others, but you may cherish the well-grounded hope that you will attain success. And in all your struggles and efforts to discharge with fidelity the responsibilities of your calling, remember this—that you will not be less likely to inspire confidence and attain success as architects if you constantly bear about with you, in the complicated relationships of your professional life, the unmistakable characteristics of gentlemen.

J. Macvicar Anderson.

THE HON. SECRETARY'S REVIEW OF THE STUDENTS' WORKS.

Observations by Mr. William Emerson, 16th January 1893.

Gentlemen,—It is my duty to make a few observations on the work submitted in competition for this year's Prizes and Studentships. I do not propose to make, nor would time allow of my making, a careful criticism of every work. I shall, therefore, confine myself to noticing a few of the principal sets of drawings, and to adding some general remarks; and I must say I feel acutely the position in which the President has placed me by asking for critical remarks, because criticism directly puts one in an adverse attitude, as if in search of defects and errors. I trust, however, I may be forgiven for any remarks I may make. In self-defence I must say that, in examining so many splendid sets of drawings, it was very much easier to be attracted by many beauties than to hunt for defects and errors.

The Royal Institute Medals.

For the Institute Medal and twenty-five guineas only two gentlemen competed, and the essay, by Mr. C. Bernard Hutchinson, under the motto "Persevera per severa," was considered by the judges to be the better of the two, on the ground that it showed considerable research. But the primary object of this prize when instituted was, I take it, to be an encouragement to *literary* attainments amongst the rising generation of architects. What would most of us know about architecture were it not for the works and writings of members of the architectural profession, both in ancient and modern times? Such names as Vitruvius and those of his many translators and com-

mentators, of Serlio and Palladio, Desgodetz and Blondel, Chambers, Pugin, Viollet-Le-Duc, and Street, one would think, might inspire more than two students a year to some effort in this direction. Research is not only what is required: the career of an architect (not to mention the chance of his publishing some work) constantly involves him in reports and descriptive writings of all sorts, to be laid before all classes of people, for which style and good composition are essential. These two essays are weak from the literary point of view, and for this reason the Council have not awarded the Medal; but each competitor has been allowed five guineas. Let us hope that next year will show some better result.

The Institute Silver Medal and ten guineas, for measured drawings of an old building, have this year produced only three competitors, and the award has been made to Mr. George S. Hill (motto, "Saint Kentigern"). His drawings, which are of the crypt of Glasgow Cathedral, show very considerable pains, and the figured dimensions are carefully marked on them. His Sketch-book notes are very full. The drawings of Lacock Abbey (motto, "MDCCCCLXXXXII") are also exceedingly careful and praiseworthy, and they are beautifully executed. In the third set submitted, under the device of a red thistle, nearly all figured dimensions have been omitted, and seeing that these are essential under the conditions laid down, it argues carelessness in their author; it is a pity to go so far and then fall short on a crucial point. It should be remembered that for measured drawings one can scarcely make too many notes or take too many dimensions.

The Travelling Studentships.

The Soane Medallion and a sum of £100 for foreign travel have this year brought out fifteen competitors—I believe as large a number as we have ever had. Perhaps the subject—a railway station—was a congenial one. The design which gains the Medallion and £100, with the motto "Inexorabile Tempus," is by Mr. Arthur T. Bolton, an Associate. His plan is a very workable one. In all probability, the iron roof over the station would stand, while in many of the other designs sent in it certainly would not. The arrangements seem good, but the architecture can hardly be considered of a very high character. It has a small resemblance to the Potsdammer Bahnhof at Berlin, but the composition of the main façade of that building is very much better. The lines of the gable and the angles it forms with the towers are awkward in Mr. Bolton's design. There are examples of this treatment in Italian work, but nevertheless they are rarely happy. It seems a pity, when the large arch is suggested, that its form should not have been followed in the opening it encloses, instead of the one shown, the shape of which is rather ugly. This design was nearly losing the Travelling Studentship, in consequence of the inferior drawing of the perspective and the poor entrance. It is worth while practising perspective drawing, for by it only can your design be effectively shown. The detail, too, is somewhat eccentric, though less commonplace than in the design placed second, which is by Mr. J. Scott Stewart (motto, "Loco"), who obtains a Medal of Merit and ten guineas. In this design there appears to be insufficient abutment—or, rather, the abutment is not carried up high enough for the large iron ribs to the roof over the station, which ribs, however, seem to be the best, constructionally, of all those shown in this competition. But the plan is not quite so well arranged as in the one placed first. There is nothing objectionable in it, but, on the other hand, nothing to raise it much above the commonplace, though it is a very sensible and businesslike composition. The design placed third, obtaining a Medal of Merit, is by Mr. Alfred C. Houston (motto, "Ad "Rem"), the Ashpitel Prizeman of 1892—in most respects the best as far as plan goes. It is perfectly symmetrical and well balanced, and bears evidence of considerable study by a very practical mind. The arrangement of abutment to the iron roof is well considered, though it is doubtful if the sectional area of the iron columns, or the

portion of masonry on which the weight of the huge principals falls, is sufficient. But there seems an unfortunate want of judgment as to the fitness of things when the external effect of the design is that of, say, a town hall, hotel, or elaborate Board school, rather than a railway station. If the subject be a station, the principal feature of which is an enormous roof in one span, why mask that feature or conceal it? There can be no doubt that in such designs the first thing to be considered is a workable plan which should properly answer the requirements as economically as possible according to circumstances; and the second thing is that the design should be as artistic as possible. Therein are comprised suitability to the subject, good proportions, selection of the right materials to be employed, and beautiful detail. If a design for a railway station does not look like what it is intended for, one may be certain that it is wrongly conceived. There should be no possibility of mistaking a church for, say, schools, or of mistaking a prison for a workhouse, or a hospital for a hotel, or a railway station for anything else.

Notwithstanding many defects which must necessarily be found in students' work, the above-named designs are worthy of very great praise for the thought bestowed on them and for their very careful delineation.

Following on these remarks I cannot but condemn in a friendly way a design which has for its motto a green device. Though there is some very pretty and attractive drawing in parts of this design, the plan is in the first place hampered by the introduction of two large towers, the supports of which cause difficulties about the Booking-Office and block up too much of the available space. Moreover, the arrangement is not sufficiently considered; as an instance, the Board Room is on one side of the building while the Secretary's office is on the other. In it a good deal of time and drawing have been expended on decorative details, to say nothing of the two towers before mentioned, which are absolutely unnecessary and unsuitable for a railway station; and in reference to these drawings I would remark that peculiar or eccentric detail (say, for instance, the arches over the entrance) does not necessarily mean beauty of design. The same remarks as to unfitness apply to all those designs which have lofty towers or campaniles as adjuncts. I lay stress on this because an ill-thought-out plan can never be made a good one by the addition of useless features or decorative details, however well they may be designed: on the contrary, their introduction usually tends to hamper the usefulness of the plan, and leads to numerous difficulties. Just in passing from these sets of drawings, I would mention that one competitor who introduces an enormous tower has, clearly, little idea of either fitness of design, or proportion, or of strength of material. His tower is so marvellously out of scale as to be positively wonderful, and he introduces a tie-beam to his wooden roof some four feet or more deep. It seems to me as if these valuable prizes induced a number of young men to waste a good deal of time in preparing designs for which the amount of architectural knowledge they possess is quite insufficient, which time would be more profitably expended in study. Would it not be possible to restrain this exuberance of youthful energy, and conserve it in some way for more effectual later efforts?

For the Pugin Travelling Studentship some very beautiful drawings have been submitted, and those by the successful candidate, Mr. J. J. Joass, show a good selection of subjects and evince truly artistic feeling; in these careful drawings there is no strained effort to obtain a meretricious sketchy effect so much in vogue just now, as if a pretty drawing were the sole object to be aimed at by a student in delineating architecture. On the contrary, they are well and carefully drawn, and one can make out clearly what their details mean; and the same may be said of the very excellent work of Mr. T. A. Sladdin, who obtains a Medal of Merit. The third, Mr. Harold Brakspear, who is honourably mentioned, has evidently great power of draughtsmanship and command of his pencil, and shows one or two carefully drawn examples of Renaissance detail. Most of the sets submitted for this Studentship are exceed-

ingly good and interesting, and well worth looking at, evincing great industry in pursuit of the knowledge of architecture, though it is curious to see how the drawing of the plans and sections of ornamental detail is shirked: some hardly show a plan of anything. How can the detail of, say, an elaborate screen with niches and canopy-work be properly understood if you only sketch the elevation and omit all delineation of projections? The three gentlemen who have obtained prizes in this Studentship are exceptions to this, I was going to say, unfortunate rule, and their plans and details are exceedingly careful.

For the Godwin Bursary, Mr. Banister F. Fletcher is the successful candidate. He goes, I understand, to the World's Fair at Chicago, and will bring back a report on matters connected with architecture, for the benefit of the Institute. As there were only three candidates, I presume the practical subjects of sanitation, warming, ventilation, &c., do not fully commend themselves to the architectural student of to-day; though, nevertheless, they are important factors in an architect's practice. It may not be inappropriate to state here that the holder of the Godwin Bursary of last year, Mr. Locke Worthington, an Associate, has done exceedingly well in France, and obtained valuable information which, when published, will be of use to the Institute; and it must necessarily be of greater use to himself.

The Owen-Jones Studentship has brought forth one of the best series of studies of colour, by Mr. Alfred Hoare Powell, ever submitted to the Institute. These are careful drawings to large scale, some being full size, and all with a remarkable feeling for colour. Mr. Powell is to be congratulated on his artistic capacity. It is a pity that only two of his drawings show architectural colour by the juxtaposition and combination of coloured building materials. But his studies of colour decoration, especially those of the beautiful screen at Southwold Church, are worthy of the highest commendation, and I for one shall look with interest to the result of his studies abroad. His subjects are carefully selected. Mr. A. N. Paterson, an Associate, whose work is also exceedingly good, has submitted a selection of coloured studies, and of pencil drawings of Italian architecture in which coloured materials are used, but in the latter he has carefully omitted all colour, which, seeing that this prize is mainly for that, is a little curious. Mr. Francis Masey's drawings are very pretty, many of them are just what an artist might delight in doing, but they hardly show serious study of the methods of introducing and applying colour to architecture; and I do not quite see what trees and rocks have to do with the subject, unless they happen to be in mosaic or coloured sculpture. For the Owen-Jones Studentship thought and care should be taken, first, in the selection of the subjects, and then in the method of their illustration; for a study one does not want so much a pretty sketch of the general effect with adjoining scenery, as careful details of the arrangements, tints, and methods of application of the colour. In frescoes or mosaics, one would like to know, for instance, if the outlines of the figures, trees, or buildings, &c., represented are in brown or black; and whether the shades or draperies are of a deeper tone, of the same general local colour or different, and if so what colour; and how the tesseræ are arranged, whether by horizontal or concentric lines, or placed at random; and whether details of features or limbs, or folds of drapery, are shown by lines, as in Cimabue's mosaics and as in early glass, or by shade, as in that of later periods. No small scale water-colour drawing can show such details as these, which are most necessary in arriving at a knowledge of how to produce certain effects to be seen either at a distance or close to the eye.

The Tite Prize, the subject being the Interior of the East End of a large Town Church, is obtained by Mr. C. A. Nicholson (motto, "Omnia honeste et secundum "ordinem fiant"), whose plan is well arranged. The whole design is in fair keeping throughout, but seems hardly serious enough for a church; such a subject would, in my opinion, be better for severer treatment, and the broken pediment over the altar might be replaced by something less frivolous and in better proportion. This is,

however, a pure matter of taste, or, shall I say? a matter of pure taste on which some may think diversely. The organ is usefully and sensibly placed at the side in a gallery, and open to the transept as well as the choir, but the height to the roof above is hardly sufficient for free emission of sound; the orchestra is also well considered. The organ case is full of original detail, very charmingly and nicely designed and showily drawn, though in the splashy and tricky style not to be commended. The work would have impressed one more had it been shown by sober, clean, fairly drawn and finished lines. It is evident Mr. Nicholson has thought rather more of the effect of his pretty drawings of detail than of the real architecture of the church. The general proportion is defective; the details of his main cornice, and the coffers in the soffits of his large arches, and the way some small arches spring from the imposts, might have been much better if a little more considered by one so exceedingly clever. Regard, I am glad to note, has been paid to the convenience of communicants by the introduction of side exits, a most necessary arrangement for a crowded town church; but a slight alteration would be requisite to the seating in the side chapel. In respect to the design "Bramantino," by Mr. R. S. Dods, who obtains five guineas, one cannot but feel that thirteen steps up to the choir are decidedly too many, as the congregation half-way down the nave could hardly see the altar, and certainly not when kneeling; also there is no side exit for communicants, the omission of which always causes confusion. The detail of this design is less interesting, and has not the same life and originality as that of the one placed first. The lighting is also defective. Coming only from the small aisle windows and the lunettes above the cornice of the choir, it would be insufficient for a London church, and would cause the altar and organ to be decidedly in the dark. In respect to the position of the organ, I cannot help feeling that there is a want of judgment as to the fitness of things in overshadowing an altar by the organ placed immediately behind and above it, as suggested in this design; and also as in the case of the plans marked "Modern Worship," where a huge screen supporting the organ and gallery for musicians is placed immediately in front of the altar, which is seen through it. Surely a church is an edifice constructed to enclose—or may I say, a casket erected to contain?—the altar at which the worship of God is celebrated as the principal object, and also to shelter the worshippers, while the organ is simply a very important, though secondary, adjunct necessitated by the services held. Therefore, to place the organ in a position which causes it to appear almost, if not quite, a more important feature than the altar— to say nothing of the distracting effect of musicians immediately in front or over it—cannot be otherwise than wrong. There seems a want of really thoughtful feeling about such a suggestion, and, whatever the framers of the Report on musical arrangements in churches * may say, I should think, if there is no logical way other than this out of the maze of instructions they have given, their Report had better be modified. Indeed, I think that the special attention paid to the Report on musical arrangements in churches has caused most of the competitors to think too little of the first and most important consideration necessary to a town church—where large congregations and a number of communicants may be reasonably expected to attend—namely, a convenient plan. In the design marked "Crescendo" there is no side exit for communicants, and the space between the altar steps and the communion rail is so narrow that the clergy could not pass behind each other while communicating; but I notice that in this point the plan and section do not agree. "Modern Worship" would also be very inconvenient for communicants; indeed, most of the designs are weak in this point. In "Incognita's" plan, communicants must either kneel at the step at the end of the stalls, where only a length of twelve feet is provided, or nearer the altar, on the next steps, which are three in number. Now one cannot kneel on three steps, or at any

* Vol. VII., N.S., pp. 325-29. The Report was received by the Council and ordered to be printed, but neither considered nor approved by them.

rate should not be asked to do so ; nor should there be even two steps to the altar rail, for the officiating priest would be a step higher than the kneeling communicants, which would oblige him, especially if tall, to stoop considerably—a very tiring proceeding where many receive. The design marked by a device of three circles is more a cathedral than a large church, but the organ and orchestra at the west end form decidedly a better arrangement than placing them either behind or in front of the altar ; but it would require a small choir organ, which is omitted to be shown. By electric action both might be played from the same keyboard in the choir.

Hardly any one of these designs is very good in proportion. I said just now that the first thing to be considered was a good plan, and the next a good elevation, and I now say the first and most important point to be considered in design is proportion—first, in respect to masses ; and secondly, as to details. The best proportions to my mind are seen in the design with the motto "Modern Worship." "Crescendo" is more Gothic than Classic in relation of its height to the width. The dignified simplicity of the design and the placing of certain decorative details by "Modern Worship" are worthy of much praise ; so is the composition of the screen and gallery for musicians ; but his drawing is rather inferior to some of the others. The fine open space in front of the choir would make decidedly the best general plan shown, apart from the east end, which is, however, the subject named. Could a space large enough for the organ have been provided in one of the sides of the octagon facing down the church, I should say he would have made a very good suggestion indeed ; or even if he had divided it (notwithstanding the Report), and put half on either side of the choir in the alternate sides of the octagon, it would have been very good for antiphonal singing ; and the sound would travel well into the church. Indeed, all these competitions are most satisfactory as showing life, and courage, and industry in the rising generation of architects ; the thought and elaborate draughtsmanship evolved are amazing, and cannot be anything but beneficial. Nevertheless, it would be well to consider the drawings and studies of some of the greatest masters of past days ; some of which were shown in these rooms not long ago. I have a recollection of seeing sketches for both pictures and architectural designs in the gallery over the Arno, between the Uffizi and the Pitti Palace at Florence ; and I could not help noticing how those masters of composition, whether for pictures or architecture, roughly, but fairly, drew out the masses of their designs, first weighing well the proportion and lights and shades, scarcely any detail being shown at all—or perhaps a sketch by itself of cap, column, entablature, or pediment, showing clearly that in their eyes the details were matter of after consideration. A few lines and shadows carefully drawn gave a general study of the design, which was afterwards clothed with detail. Nowadays the excellence and facility attained in draughtsmanship appear to have the effect of causing more attention to be paid to detail than to the main architectural features, which are apparently drawn straight off without any such careful studies as those I have named ; it also sometimes appears as if the general design were made for the sake of introducing certain details that would fit it—in fact, the very opposite method of working to that employed by the old masters, the first and grander idea of proportion being allowed to take care of itself. Of what use or value is a building if its plan does not answer the primary purpose ? and again, of what use is detail, however beautiful it may be, if it does not embellish fine proportion ? The old buildings we most admire are those in which proportion is perfect, or nearly so, whether it be those of Greece, Rome, the Middle Ages, or the Renaissance. The detail is an extra, though interesting, incident ; but grandeur, or fine architecture in its truest sense, can never be obtained by detail alone. In fact, Mr. Ruskin, in a recently published work, has well said that good and appropriate design cannot be expected if there is to be a wild struggle after novelty, and if the fantastic is mistaken for the graceful, the complicated for the imposing, superfluity of ornament for beauty, and its total absence for simplicity.

Modern Draughtsmanship.

Judging by some of the sketches and drawings I have examined, the draughtsmen apparently forget that the object of a student's drawing architecture and architectural detail is first to learn; then to show the work clearly and the form of its details accurately, not to indicate in a showy way the general effect—this is all very well for a newspaper artist, but for the architectural student it leads him into a wrong appreciation of the objects of architectural drawing. And here I cannot help remarking that I think a large amount of harm has been done of late years to architecture and architects generally by the amount of tricky and misleading pen-and-ink draughtsmanship which has long been the fashion; the effects are in most cases absolutely untrue and unlike the buildings when erected, and this fact photography often reveals. For instance, red brick buildings with white stone dressings or other varieties of coloured materials are constantly made, by means of illicit shadows and impossible broad lights, splashes, dots, broken lines and other dodges, to appear to the uninitiated most charming compositions, but when executed they are totally unlike the effect produced in the drawings. They are often most disappointing, because no particular thought has been given to proportion or masses of shade, and to the disposition of the materials or masses of colour, and depths of mouldings or reveals. In fact, the object in the class of work I refer to is not so much to represent faithfully an architectural design, as to make a showy drawing to impress the uninitiated; and in this the superficial and meretricious feeling of the age seems to be represented. The fairly thoughtful, well-coloured drawing of an earlier period was certainly less deceptive.

So long as it is forgotten that drawing is only a medium by which architecture is studied or shown, and students and others vie with each other in simply turning out pretty drawings, so long will many of our modern buildings result in disappointment. The effect of detail in execution, as well as of general masses, is what has to be learned, and this can only be done by careful dissection of old work, by measurements, and by accurately delineated drawings. My friend the late William Burges said that he was ashamed to think how many books he had filled with pretty sketches during his earlier travels; and at that point he would have stopped, had not a critical friend asked him cynical questions as to why he did this drawing or that pretty sketch, and why he had not drawn the full-size curves or contour of that particular moulding, till at last he was obliged to confess that the sketches had been made for the vanity of making pretty pictures, and that they were absolutely useless. He then made up his mind to turn over a new leaf, and the result was that he obtained an entirely different collection of drawings from his former ornamental sketches, in the shape of rough but accurate and valuable documents. I would commend this fact to the thoughtful student for reflection.

Perfect drawing and facile draughtsmanship are most necessary to an architect; but do not let us exaggerate their importance and make an architectural god of drawing, which is, after all, merely the A B C by which we express our intentions. I speak strongly on this point because one cannot help seeing the danger some of our young men are falling into of considering the drawing more than the truthful effect of the structure they portray. Do not misunderstand me. I do not wish to decry clever draughtsmanship, but only the fascinating tricks now in vogue. Every architect should be able to draw well, though it is well known that many men have turned out beautiful buildings who were no great draughtsmen, and whom, nevertheless, we shall find it very difficult to beat, notwithstanding that many young architects have already left them far behind in respect of drawing.

If a man cannot draw he cannot even suggest his designs properly, or rightly correct his details, and this is a necessity; but it is a different thing from priding him-

self on doing every detail with his own hand. Burges used to say that your head-work is more important than your hand-work, and therefore do not waste too much of your time (that is, as a practising architect, not as a student) in the merely mechanical work which others, under your instruction and correction, can do just as well for you. In this I have not the slightest doubt he was right, from the highest architectural point of view; and if a late celebrated architect, to whom we owe one of our latest public buildings, had made fewer drawings with his own hand, and given more time and thought to the arrangements of the architecture generally, the result would have been less disappointing, more useful, and more artistic; nor need the detail itself have suffered in the least degree, with proper supervision, but quite the contrary.

Perfect drawing of good designs needs no adventitious aids nor tricky artifices. The beautiful drawings of Mr. Heber Rimmer and Mr. Bedford, with the less perfect drawings of Mr. Kitsell, shown as the result of their travels, are clear proofs of this. Gentlemen, let your work tell the straightforward, manly truth, for you may be certain that in the long run an honest delineation of architectural subjects will help a student on the road to ultimate success as an architect much more safely and surely than any introduction of untruthful but pretty effects which the finished building, executed from such designs, invariably fails to realise.

W. Emerson.

PROCEEDINGS.

Monday, 9th January 1893.

[Mr. Macvicar Anderson, *President*, in the Chair.]

Fifth General Meeting (Ordinary).

As no notice had been given of any professional questions for the consideration of the Business Meeting fixed for this date, and as such business was confined to a ballot for and an election of new members, the Meeting became an Ordinary one, and a Paper was read and discussed. The preliminary part of the proceedings was taken up with a reference to the late Mr. John Gibson, *Past Vice-President*, and the appointment of Mr. Papworth [*F.*] to the Curatorship of the Soane Museum.

The Late Mr. Gibson.

The PRESIDENT.—Gentlemen, since the occasion of our last Meeting one of our number has passed away: one to whom I think I may refer, without exaggeration, as a distinguished member of the profession—the late John Gibson. Mr. Gibson's career is no doubt known to most, if not all, of you; but if not you have only to refer to the obituary notice which appeared in the last number of the Journal * of the Institute, written by his old friend Mr. Brakspear. The incidents of his career being so fully depicted there, it is needless for me to detain you by reference to them now. Suffice it to say that Mr. Gibson came to London in early life from the midland counties, and entered the office of the late Sir Charles Barry—in my opinion the greatest English architect that this century has produced. No doubt he there became imbued with that taste for pure classical art which was so remarkable a feature of his works, most of which exhibited in an exceptionable degree a combination of masculine power and classic purity. Mr. Gibson was a man of few words, but he was a man of sound judgment; and, in these days of much speaking, I need scarcely say which is the most valuable characteristic. (Hear, hear.) He was one of those whose native modesty forbade him from vaunting himself before the public, as, in these days of advertisement, we have too many illustrations, even within the ranks of our own profession. Mr. Gibson possessed the faculty of gaining the confidence of his clients and those with whom he came in contact, for I well remember Colonel North, an old client of his, speaking of him to me in terms not merely of regard, but almost of affection. I thought, Gentlemen, you would permit me to refer in these few words to one whose loss I deplore, for whose character I entertained sincere respect, and whose works I regarded with admiration. (Hear, hear.)

* *The R.I.B.A. Journal*, pp. 118-19 *ante*.

The Soane Museum.

The PRESIDENT.—Gentlemen, I have learned that Mr. Wyatt Papworth has been appointed Curator of the Soane Museum. Of all men in our profession I can think of no one so thoroughly equipped and so well qualified for this office as he is. The President and Council of the Royal Academy have conferred honour on themselves in having thus honoured one who, in the opinion of his colleagues here, so truly deserves all the consideration that can be bestowed upon him. I am sure I only express your feelings when I say that we heartily and most cordially congratulate Mr. Wyatt Papworth on the appointment he has received. (Hear, hear.)

TOURS IN SPAIN AND MAJORCA.

Abstract of Mr. Prentice's Paper.

In his introductory remarks the author considered no country in Europe possessed the same variety of styles as Spain; and Seville was one of

the most interesting of its cities—a city in which the hands of the Moor could be traced in the tortuous and narrow streets, the courtyards, the ancient walls and aqueducts, and lastly the famous tower of the Giralda. The original tower was built in 1196 by the Moors, and was of the same height as the Campanile of St. Mark's; the Renaissance work was added by the architect Hernan Ruis in 1568, and though considered by some to have spoilt the proportions of the tower, it was to the author's mind a very picturesque object. The Sacristy of the Cathedral was a spacious apartment in the Renaissance style, while the Sala Capitular was more beautiful and refined. The latter was in the form of an ellipse, the ceiling, pavement, and walls being decorated in the most splendid style. Through the instrumentality of the Institute Travelling Card Mr. Prentice obtained permission to measure the great screens around the High Altar in the Cathedral. After the Cathedral, the Alcazar was the next building of importance, and he had spent several weeks making sections and plans of its beautiful details. It was a large Moorish building, somewhat later in date than the Alhambra, and, though smaller, equally fine. The entrance gateway was magnificent, and there was more variety of wall tiles than at Granada, of which he had taken full-size rubbings. Much of the original colouring remained, in spite of the cruel whitewashing to which the building was subjected in 1813. Another palace in Seville in a semi-Moorish style was the Casa Pilatos. It had a large courtyard some 50 feet square, the walls of which were covered with tiles to the height of 10 feet. The Casa Ayuntamiento was a very fine specimen of the Plateresque style, and worthy of mention. Although familiar with the appearance of the Alhambra from photographs and books, any one entering its courts for the first time could not but be carried away by the novel surroundings, and interest was at once awakened as a new-found treasure. After Seville he, at first, had the idea that the Alhambra was a blaze of colour; but, with a few exceptions of decoration, the delicate traceries and walls were of a creamy and white colour. If the Alhambra had ceased to charm the architect at home, from the many vulgar attempts at its reproduction, still any one with a soul for the artistic could not fail to appreciate the wonderful grace of form in the proportion of the arches and openings. A careful study of any of its parts was a useful lesson to the student: the Hall of Ambassadors, for instance, the entire surface of which was a mass of decoration, and yet it did not appear in the least degree overdone; this effect, he thought, was gained by the variety of the ornament and the mode of placing a large pattern next to a small and intricate one. The advantage of beginning at the floor level with a delicate arabesque, and increasing in boldness as it ascends, also became apparent. Under Italian influence the still unfinished Renaissance Palace of Charles V. had been begun in 1526—a building unique in Spain both for its style and plan. Built in close proximity to the Alhambra, Spaniards seemed to have taken a dislike to its formal style, and had evidently preferred to imitate their own buildings, their sympathies lying more with the Moorish work. Having drawn attention to the many points of similarity between the Moorish and Renaissance work—notably in the increasing boldness of the arabesques the further they receded from the eye, and in the mode of lighting—Mr. Prentice considered a careful study of the plans of Moorish buildings of great value and interest. Nothing was haphazard. The doors and halls were arranged on a central axis producing charming vistas, while, no matter what size the houses were, they all had courtyards, varying from 6 feet square, as on the Torre Captiva, to the large Court of the Lions, 116 feet by 66 feet. During a stay at Cordova Mr. Prentice made a study of the entrance to the Holy of Holies in the Mosque —a most impressive piece of decoration. Besides the Mosque, many instructive lessons might be gained by an exploration of the town. His first impressions on arriving at Toledo were disappointing. Coming from the South, where the houses and streets were bright with colour, Toledo looked grey and cold; on returning after a journey in the North his impressions were completely reversed. It contained many specimens of the Early Renaissance work. The popular idea that Spain was the country *par excellence* of the grotesque in Renaissance architecture he was well aware of, and he knew few countries where the spirit of *abandon* was so completely displayed. But when the Renaissance in Spain was analysed, it was found that it was divided into three distinct periods—the Plateresque; the Græco-Roman or Estilo de Herrera; and the Rococo or Churrigueresque, of which the first-named was the purest, and corresponded to the Cinque-cento of Italy. The principal buildings in Toledo, described by Mr. Prentice, were the Hospital of the Holy Cross, the Alcazar, and the Cathedral, which contained numerous iron screens of the Renaissance period. The study of such screens he had followed up at the Cathedral of Cuenca, where the finest collection in Spain was to be found, and where the interior was a perfect mine of Renaissance detail in stone, wood, iron, and rich jasper. Madrid possessed few ancient buildings of note, but several modern buildings had sprung up of late, constructed on the most approved fireproof principles, such as the Bank of Spain, a large new railway station, and buildings connected with the municipality. Salamanca, after Seville, was the most interesting city in Spain, and might justly be called the home of the Renaissance. In the cathedrals of Spain the choir was situate in the nave, but in a number of smaller churches, and especially in conventual buildings, it was placed at the extreme west end; Santo Domingo at Salamanca was an example of that treatment. The journey to Leon and Santiago de Compostella should not be missed; the latter place had a distinct character of its own, nearly all the houses being of granite, and the street being lined with arcades. From Burgos he had brought several sketches of the local Renaissance, and the Cathe-

dral at Siguenza—a city not often visited—contained many gems of Plateresque work. Owing to the absence of stone in the locality of Saragossa, most of the houses were built of flat bricks crowned with wooden cornices. Of the many monastic buildings in Spain, the Benedictine Monastery of Poblet, now in ruins, was the most interesting and extensive after the Escurial. From Barcelona Mr. Prentice proceeded to Palma in Majorca, where subjects for sketching were innumerable, from the large cathedral down to the door-plates of the houses. His object while in Spain had been to study and sketch as much of the architectural remains as time permitted, as he was conscious that the past was being trampled out of the country, and many ancient buildings rapidly disappearing.

Discussion.

Mr. R. PHENÉ SPIERS, F.S.A. [*F.*].—Sir, I find myself very much in the position of the drummer boy in the fable, who did not fight himself, but incited others. I have not been to Spain, but I have been the cause of sending a very large number of students there, and among them Mr. Prentice himself. It happened some years ago that I became possessed of a collection of photographs which belonged to Mr. Owen Jones, and amongst them were four magnificent photographs of buildings of the Plateresque style, similar to some of these here shown by Mr. Prentice. Mr. Prentice had already been to Italy, and he was so delighted with the work shown in these Spanish photographs that he determined to make his next tour in Spain. He found so much to interest him on his first visit that he determined to make a second, and now here you see the result of his travels. It is only, perhaps, in the last twenty years that greater attention has been paid to a similar period in France. Although the works of the François-Premier period in France were known, certainly, to French students, they never seemed to have found much favour in the eyes of the students of the École des Beaux-Arts. They drew and sketched them, but they made no use of them in their later studies. Here, in England, I think the work has fallen on better ground, and a great deal of the later Renaissance, the modern Renaissance work that you find in England, is, I think, inspired by that which is found in the François-Premier in France. It is difficult sometimes to get persons to understand that transition work between Gothic and Italian, both in France and in Spain, is likely to be quite as fine and interesting as that of the Cinque-cento in Italy. In fact, the works of the Cinque-cento period in Italy, those we admire most, are more or less confined to the magnificent sculptures on tombs; and it is only in Venice really that you find buildings combining picturesque aspect with classic detail of the Renaissance. In other towns in the north of Italy, where I was travelling last year, I was painfully conscious of the absence of that beautiful picturesqueness of design that one sees in almost every French town. The fact is that the soil of France and of Spain (and when I say the soil I mean the previous style of the flamboyant work in both countries) was precisely of that kind of work which would lend itself to the development of the early Renaissance. The picturesqueness which is found in the flamboyant buildings in both countries seems to have been given to the classic work, and it avoids that rigidity which you find in Italy. The work in Spain is perhaps not quite of the exquisite finish that you find in France, but I think it is infinitely more vigorous, and Mr. Prentice has drawn our special attention to the fact that the work of the lower portion of the buildings is kept on a comparatively small scale, and is more minute, and increases in scale and in boldness of projection as it rises. I think the Paper Mr. Prentice has read will suggest to other students to go there, even although it is a little farther off than France; and if such a tour be alternated with that to Italy (of which we all know almost all the buildings), it will be found a great benefit, and their labours will be amply repaid by the wealth of beautiful detail, intercolonial decoration, and metal-work of greater variety and beauty than can be found elsewhere. I have much pleasure in proposing a hearty vote of thanks to Mr. Prentice for the Paper he has read at such short notice, and I should also like to congratulate him on the fine and beautiful drawings he has brought down to illustrate his Paper.

Mr. HENRY DAWSON [*F.*].—As I have travelled in Spain and visited several of the towns referred to by Mr. Prentice, I shall have very great pleasure in seconding the vote of thanks to him for his most interesting Paper. The only criticism I would offer is on that part of his account of the Alhambra where he expressed himself as being disappointed with the small amount of colour. I do not know whether he will bear me out, but I think my memory is correct, that the chief part of that absence of colour really applies only to the Patio or Court of the Lions, and to the Patio of the Alberca, for when you pass into the halls round the Court of the Lions, such as those of the Ambassadors, the two Sisters, and the Hall of Justice, and that beautiful room—I forget the name of it—which leads to the Sultana's Boudoir, the surfaces abound in colour. Then there is also the Mezquita, or Mosque of the Alhambra, which is fairly rich in colour. I submit, therefore, that the absence of colour in those two Patios, albeit beautiful as they are with their cream-coloured old Moorish plaster-work, is really an advantage artistically by force of contrast. I was hoping we should have had a larger amount of description and comments by Mr. Prentice upon the beautiful Mosque at Cordova. I am sure that unique structure will reward any of our architects or students who may go there and study such a magnificent example of a mosque which, I believe, is something like 300 years earlier than the Alhambra and its Mosque of Granada. The effect of the numerous aisles, viewed either rectangularly or diagonally (I think, if I recollect right, their number is thirty-six one way and twenty-six another), with their remark-

ably picturesque marble columns of varying designs, which were the contributions of almost all the countries of Europe, from Constantinople to Spain, France, and Italy, together with those marvellous ogival arches of brick and stone which spring from the columns—the effect of all these, I repeat, is most enchanting, and would, I am sure, well reward a visit from our art-seekers. But really the ground over which Mr. Prentice has carried us excites our admiration so much that I will conclude by saying that I have been very much charmed with his Paper, and I am sure we all have been, and we shall agree that the country of Spain affords most admirable ground for any one who is enthusiastic, and can bring home with him the treasures he finds there. I am very thankful that we have had such a Paper, and I heartily second the vote of thanks to Mr. Prentice.

Mr. THOMAS BLASHILL [*F.*].—Sir, I have never got farther than the north of Spain, and therefore have never had the delight of seeing the Moorish work in Spain; but my impression generally of the Gothic work I saw is fully borne out by what I can hear of the Renaissance work. The characteristic of what I saw was the excessive amount of ornament with very elaborate detail, heavy perhaps, but rich, and full of imagination, and I think so different from what one sees in France and Italy that one's education, if one could afford to complete it, would be by no means complete without going farther and seeing more of it. With regard to Spain I am afraid that before our young students can get there, there will have to be a little more of the organisation of travel which we are attempting with regard to Italy. I hope Mr. Prentice will tell us a little about the way in which he managed to get about. But the means of travel there, and the means of living are, to our notions, crude, and unless one has a purse full of money, and can travel with a courier and all the modern conveniences, one would get on very badly.

Mr. ALEXANDER PAYNE [*F.*].—Sir, I have been rather thirsting to have some explanation of the other drawings on the walls, which are equally beautiful with those of Mr. Prentice. If any one could give us a description of them, I think it would be a very good corollary to what has gone before.

The PRESIDENT.—Those are Mr. Rimmer's drawings. Mr. Rimmer lives in Chester, and I presume he is not here. They are certainly very beautiful, and are well worthy of careful study. This brings me to remark, as well as the gradually thinning benches in the rear, that it is scarcely desirable to keep up a long discussion here with the superior attractions of the drawings that are being exhibited in the gallery below. I say this without reflecting in any way upon the merits of Mr. Prentice's Paper, which I thoroughly appreciate. A vote of thanks has been proposed by Mr. Spiers, and seconded by Mr. Dawson.

The vote was passed by acclamation.

Mr. A. N. PRENTICE [*A.*].—Mr. President and Gentlemen, I have much pleasure in expressing my thanks for the remarks that have been made about my Paper, and I am afraid that anything more I might add would only tax your patience. With regard to Mr. Rimmer's drawings, I may say that Mr. Rimmer accompanied me during part of my journey in Spain this summer, and many of the drawings were made in my company. We did not both sketch the same examples, and it is quite apparent that it was better for us to sketch different examples of each style.

PROCEEDINGS.

Monday, 16*th January* 1893.

[Mr. J. Macvicar Anderson, *President*, in the Chair.]

Sixth General Meeting (Ordinary).

After the preliminary business of this Meeting, consisting principally of the admission of new members, the President called upon Professor Aitchison, A.R.A. [*F.*], to present the Subscription Portrait of the Ex-President.

Presentation of Mr. Waterhouse's Portrait.

Professor AITCHISON, A.R.A. [*F.*].—Mr. President, Ladies and Gentlemen, by the amiability of my colleagues I was elected Chairman of this Committee for presenting the Institute with the portrait of our Ex-President, Mr. Waterhouse. It is needless for me to dilate to you, who know him so well, on his distinction as an architect, and the high position he holds, not only amongst ourselves, but also among foreign architects. A small subscription only was asked from all members of the Institute, to show our goodwill to Mr. Waterhouse, but also for the purpose of enriching our walls, and to return him our thanks for all the kindness, and for the extreme sagacity he displayed in conducting our affairs while he was President. (Hear, hear.) The Committee thought the subscription should be arranged on democratic principles; but we have not become quite a democratic body yet, and, in consequence of so many members being in foreign countries and at the other side of the world, we were obliged to get some of his friends to contribute largely. But I am happy to say that we have now got up enough to pay for the portrait, though not quite for the expenses. And when I say pay for it, I merely mean what the artist was good enough to take; for when I called upon Mr. Orchardson, he met me in the most handsome way possible. He said it was not only a pleasure to paint a distinguished architect and colleague who was so well known in the world, but that he felt it a compliment to be asked to do so by the Institute, and that he was ready to take the amount subscribed; and he has not only done so, but has painted us one of the finest portraits that we have. It would be needless also to dwell on Mr. Orchardson's merits. His pictures at the Royal Academy have been looked forward to for many years by all of us, and many of them have made a marked impression upon us; and no one here who has had the good fortune to see it can have forgotten his great picture of "Napoleon on the *Bellerophon*"; nor

that interesting salon in which the beautiful Madame Recamier received her many distinguished admirers; not to speak of those interesting domestic subjects that have perhaps equally interested many of us. I think, so far as I am a judge of painting, that this portrait is one of the very excellent ones that we have—and we have many by some of the first portrait painters of their day—by J. P. Knight, R.A., by Boxall, R.A., and by Frank Holl, R.A., and subsequent to that date by Mr. Alma Tadema, R.A., by Mr. Ouless, R.A., and we now have the crowning one by Mr. Orchardson, R.A. I am sure you will all join with me in thanking him for the great kindness and attention he has given us. I think I may congratulate the Institute on now possessing portraits, either on canvas or in marble, of all our past Presidents but one. Unfortunately he was suddenly taken away from us, and in the regret at losing him and the sudden confusion that it caused amongst us, his portrait (which could only have been a posthumous one) has not been secured, though I think it ought to be—I mean our lamented President, Mr. I'Anson. Mr. President, I am empowered by the Committee to present this portrait of our ex-President, Mr. Waterhouse, to the Institute. (Great applause.) I am afraid, Gentlemen, it cannot be seen very favourably by artificial light; but it is absolutely necessary in London to have it put under glass if the portrait is not to be spoiled.

The PRESIDENT.—Professor Aitchison, on behalf of the Royal Institute of British Architects, I gratefully accept the portrait which you, on the part of the subscribers, have now presented. It is to me a source of sincere gratification, and I am sure it is to every member of the Profession, that we should now possess a permanent memorial of one who for years we have known as an able and successful architect, whom we were always proud of and honoured as a distinguished and popular President, and whom many of us—may I not venture to say all—regard as a valued and respected friend. Although for years I have known him in these aspects, it is only lately that I have been privileged to step behind the curtain which separates professional from domestic life, and the glimpse that I have thus obtained of the sanctity, the love, the happiness of his Berkshire home, created by himself, has, if possible, increased the regard and admiration with which I have ever regarded Mr. Waterhouse since I have had the pleasure and honour of knowing him. Therefore I rejoice that we have this portrait on our walls to remind us of his well-known features and of his distinguished and honourable career. Further, it is a gratification to me that the portrait should have emanated from the gifted hands of Mr. Orchardson. It is, I think, an admirable illustration of his peculiar and unique genius—a genius which, in my opinion, is second to none among modern painters. Professor Aitchison has touched on the circumstances in which Mr. Orchardson has painted this portrait, and I think we owe him as a body our most cordial thanks for the generous treatment we have received at his hands, resulting in our possessing a valuable work of art at far less than its intrinsic worth. (Applause.) One word more. I think we ought to thank Professor Aitchison for the great trouble he has taken in organising the purely business part of this transaction. It has, of course, entailed upon him a great deal of labour, and occupied a great deal of his time, and the least thing we can do is to thank him for the labour and the time he has expended for our benefit. (Applause.)

The Addresses to Students.

The PRESIDENT.—It is now my privilege to ask your attention to a short Address to students of architecture. I do so apologetically, for I see many before me who can scarcely come within that category except in the general sense that, whatever our age, we all are, or ought to be, students [see p. 133].

The President, having delivered his Address on Some Responsibilities of the Architect, called upon Mr. Emerson to read some critical remarks prepared by the latter on works submitted for this year's prizes, &c. [see p. 140].

Mr. JOHN SLATER, B.A. Lond. [*F.*].—Mr. President, before you proceed with the distribution of prizes I would ask leave to detain the Meeting for two or three minutes. I am sure, Gentlemen, that you would not like this occasion to pass without our proposing a very hearty vote of thanks to the President and the Honorary Secretary for the remarks they have made to-night. This Address to students at the delivery of prizes on this occasion is somewhat of an innovation of not more than three or four years' standing; but I am quite sure that the Addresses that we have had from our former President and from yourself, Sir, have shown that the innovation has been a great and marked success. I am using no words of flattery when I say that the literature of architecture would be the poorer if we had not your last two Addresses. The remarks that you made last year upon the Art of Planning were such that we could all carry home with us and benefit by, and I am quite sure that your weighty remarks this evening, although primarily addressed to students, are such that it well behoves us who are older to ponder upon, whether we think of ourselves in our relations to our pupils and assistants or in our relations to our clients. Your remarks have been so admirable that I should be only diminishing their effect were I to say anything more about your Address. With regard to our Honorary Secretary, I am quite sure that the students cannot but benefit by the critical remarks of one who is such a skilled adept in designing as Mr. Emerson, and although perhaps some of his remarks may have appeared a little severe, yet it is far more valuable to have honest, truthful criticism than mere praise. I should only like to echo one remark he made, and that is the regret I personally feel that few essays have been sent in for what is now a very valuable prize. I am sure that young architects and students do not at all adequately appreciate the

importance it is, and the value it will be to them in after life to be able to put down in good, terse, vigorous language any remarks they have to make upon any architectural subject; and if I may add one word to what has been said by our Honorary Secretary, I would say that the younger members of this body would equally gain if they were occasionally to attempt to enter into the discussions in this room on the various Papers that are read here. I will say no more, but propose a very hearty vote of thanks to yourself, Sir, and to Mr. Emerson. (Applause.)

The vote was passed by acclamation.

THE PRESIDENT.—Mr. Slater and Gentlemen, on behalf of the Honorary Secretary and myself, I beg to thank you very cordially for the kind way in which you have received our respective Addresses, and for the vote of thanks you have been so good as to accord to us. I fear we have lectured you somewhat tediously—at all events, I have—upon your responsibility. Now the responsibility devolves upon me of properly thanking you for your kindness, and I think I will best fulfil that duty on Mr. Emerson's part and my own if I cut my remarks short and content myself with simply acknowledging the vote, and thanking you very heartily for it.

PRESENTATION OF THE ASHPITEL PRIZE FOR 1892.

THE PRESIDENT.—Some present may not be aware what the Ashpitel Prize means. The winner of the Ashpitel Prize is the gentleman selected by the Board of Examiners as having most highly distinguished himself during the examinations held in any one year. During the past year sixty-one gentlemen have passed the Examination (a good many more came up for it), and therefore Mr. Alfred C. Houston, in having been selected as the best out of sixty-one, has, I need scarcely say, highly distinguished himself. The prize which Mr. Houston has gained is one of books to the value of ten guineas, which I have great pleasure in handing to him. Mr. Brakspear, five years junior to Mr. Houston, may be honestly congratulated on having run so close a race with him as to have been deemed by the Board worthy of an additional prize of five guineas for books, which I am pleased to present to him.

THE SOANE MEDALLIST 1892.

THE PRESIDENT.—Mr. Heber Rimmer won the Soane Medallion last year by the design of a chapter-house on the edge of a cliff; and he may possibly remember I was rude enough to remind him then, that if he ever had to build a real chapter-house not to put it so very near the edge; but I think Mr. Rimmer's drawings, both those in this room and those in the gallery below, justify me in saying that his work is of so high an excellence that in any works he may have to execute in future years he will display both artistic skill and practical knowledge.

The President then handed Mr. Rimmer a cheque for £50, being the second moiety of the £100 awarded for travel.

THE GODWIN BURSARY HOLDER 1892.

THE PRESIDENT.—Mr. T. Locke Worthington was the Holder of the Godwin Bursary for last year. The subject which he undertook to investigate was the dwellings of the working classes of Paris. Some of his drawings are exhibited, and I have now the pleasure of giving him the Medal and a cheque of the value of £20, being the second moiety of the £40 awarded for travel. I congratulate Mr. Worthington on the useful information he has been able to acquire, which will be for the benefit of the Institute hereafter.

THE TITE PRIZEMAN 1892.

THE PRESIDENT.—Mr. T. Rogers Kitsell won the Tite Prize for last year with a very beautiful design, which many of you may remember, of a church steeple. I remember it well. Mr. Kitsell hails from my own country, I am glad to say—he was a pupil of Dr. Rowand Anderson of Edinburgh—which affords me all the more gratification in presenting him with this cheque for £15, being the second moiety of £30, awarded for travel and study in Italy.

The Presentation of the Prizes for 1893 then took place [see p. 155], after which the following remarks concluded the proceedings:—

THE PRESIDENT.—All who have studied the exhibition of drawings in the gallery downstairs will agree with me when I say that the work by our students has attained this year a high standard of excellence. To those who have won prizes I offer my hearty congratulations, and express the hope that they will not in their success forget the responsibilities which attach to the position they have acquired. To those who have failed in winning prizes I offer my sympathy, and beg them not to be disheartened, but rather to buckle to again, for the experience they have gained in preparing the drawings they have submitted cannot fail to have been valuable to them, and if they persevere and try again the experience thus acquired will be still more valuable.

MINUTES. V.

At the Fifth General Meeting (Business) of the Session, held on Monday the 9th inst., at 8 p.m., Mr. J. Macvicar Anderson, *President*, in the Chair, with 28 Fellows (including 11 members of the Council), 43 Associates (including 1 member of the Council), 1 Hon. Associate, and several visitors, the Minutes of the General Meeting (Ordinary) held on the 19th ult. were taken as read, and signed as correct.

The decease of John Gibson, *Past Vice-President* (*Royal Gold Medallist* 1890), was referred to by the President.

The receipt of donations to the Library and Collection [see *Supplement* No. 7], which included an annual donation of Five Pounds from Mr. Sydney Smirke [*F.*], was announced, and it was

RESOLVED, that the thanks of the Institute be recorded to the several donors.

The President announced that the President and Council of the Royal Academy had appointed Mr. Wyatt Papworth [*F.*] Curator of the Soane Museum.

The following Fellow, attending for the first time since his election, was formally admitted and signed the Register of Fellows, namely:—J. B. Colson (Winchester).

Having reference to the list of defaulters under By-law 20, the President made the following statement:—It is my duty to announce that, by a Resolution of the Council passed under the provisions of By-law 23, the following Fellow and two Associates have, in accordance with the terms of By-law 20, ceased to be members of the Royal Institute, namely:—William Oldham Chambers (Lowestoft), 54, Cannon Street, E.C., *Fellow*; and Richard John Lovell, 46, Queen Victoria Street, E.C., and Harry Emans Pollard, 14, Duke Street, Adelphi, W.C., *Associates*.

The Meeting having appointed two scrutineers —namely, Mr. Charles Fowler [*F.*] and Mr. Alex. Payne [*F.*]—the following candidates were balloted for and declared to be duly elected:—

As Fellows (4).

Alexander Ross (Inverness).
William Arthur Heazell (Nottingham).
James Henry La Trobe [*A.*] (Bristol).
Silvanus Trevail (Truro).

In accordance with clauses (*b*) and (*c*) of By-law 9, the following candidates were elected by show of hands:—

As Associates (9).

William Henry Burt.
John Melville Keith.
Arthur Heron Ryan-Tenison.
William Henry Ward.
Percy Leslie Waterhouse, M.A.Cantab. (Tasmania).
Theophilus Arthur Allen.
William Nicholson Cumming (Edinburgh).
John James Cresswell (Grimsby).
Harold Brakspear (Corsham, Wilts.).

As Hon. Associate.

Thomas Henry Wyatt.

The Hon. Secretary then read the Deed of Award of the Prizes and Studentships for 1892–93, made by the Council (in accordance with the terms of By-law 66) in writing under the Common Seal, as follows:—

To the Business General Meeting of the Royal Institute of British Architects, held Monday, 9th January 1893.

Gentlemen,—In pursuance of the terms of By-law 66, the Council have the honour to state that they have examined the work submitted for the two Silver Medals of the Royal Institute, the Soane Medallion, the Pugin and Owen-Jones Studentships, the Godwin Bursary, the Tite Prize, and the Grissell Medal.

The Royal Institute Silver Medals.

(i.) *The Essay Medal and* £26. 10*s.*

Two Essays were submitted for the Silver Medal of the Royal Institute,—the subject being "An Inquiry "into the methods of Proportion employed by the "early Renaissance Architects from Brunellesco to "Bramante and their contemporaries in Italy,"—under the following mottoes:—

1. Florentine.
2. Persevera per severa.

The Council have decided that, though neither of these Essays is of sufficient merit to justify the award of the Silver Medal, or has attained the standard of excellence that the subject demanded, they are not willing to allow so much care and labour as are displayed in the two Essays to go unrequited; and they have therefore awarded to each competitor a sum of five guineas.

(ii.) *The Measured Drawings Medal and* £10. 10*s.*

Three sets of measured drawings were received for the Silver Medal of the Royal Institute, under the following mottoes:—

1. MDCCCCLXXXXII.
2. Red Thistle.
3. Saint Kentigern.

The Council have awarded the Silver Medal and ten guineas to (3) "Saint Kentigern" for measured drawings of the Crypt of Glasgow Cathedral.

The Travelling Studentships.

(i.) *Soane Medallion.*

For the Soane Medallion and, subject to the conditions laid down in the Pamphlet of Prizes and Studentships dated 3rd March 1892, one hundred pounds for foreign travel, fifteen designs for a Railway Station were submitted, under the following mottoes:—

1. Ad rem.
2. Blemundsbury.
3. Carpe Diem.
4. Green Device.
5. Inexorabile Tempus.
6. Lochinvar.
7. Loco.
8. L.O.C.O.
9. Perseverando.
10. Principium.
11. Puffing Billy.
12. Puffing Billy.
13. Puock.
14. Rocket.
15. The Rocket.

The Council have awarded the Medallion and, subject to the conditions before-mentioned, £100 for foreign travel, to the author of the design (5) bearing the motto "Inexorabile Tempus"; a Medal of Merit and ten guineas to the author of the design (7) bearing the motto "Loco"; and a Medal of Merit to the author of the design (1) bearing the motto "Ad "rem."

(ii.) *Pugin Studentship.*

For the Pugin Studentship, applications, each with a select number of drawings and sketches, were received from the following nine gentlemen:—

1. Harold Brakspear [*A.*]
2. John Paul Cooper.
3. Hubert Christian Corlette [*A.*].
4. Charles Septimus Errington.
5. William Richard Gleave.
6. John James Joass.
7. Frank Lishman.
8. Percy Edward Newton.
9. Thomas Arthur Sladdin.

The Council have awarded the Studentship, consisting of a Silver Medal and the sum of £40 for travel in the United Kingdom, to Mr. John James Joass, born in August 1868 ; a Medal of Merit to Mr. Thomas Arthur Sladdin, born in November 1870 ; and an Honourable Mention to Mr. Harold Brakspear, born in March 1870.

(iii.) *Owen-Jones Studentship.*

For the Owen-Jones Studentship, applications, each with a select number of drawings and sketches, were received from the following four gentlemen :—

1. Arthur Thomas Bolton [*A.*].
2. Francis Masey.
3. Alexander Nisbet Paterson, M.A. [*A.*].
4. Alfred Hoare Powell.

The Council have awarded the Owen-Jones Studentship, being a Certificate and £50 for travel, to Mr. Alfred Hoare Powell.

(iv.) *Godwin Bursary.*

For the Godwin Bursary, applications were received from the following three gentlemen :—

1. Harry Percy Adams.
2. Banister Flight Fletcher [*A.*].
3. George Lister Sutcliffe [*A.*].

The Council have awarded the Godwin Bursary, being a Silver Medal and £40 for travel beyond the United Kingdom, to Mr. Banister F. Fletcher, who proposes to visit Chicago for the purpose of studying new and improved systems of construction, of water-supply, ventilation, and other sanitary arrangements, and of matters relating to architecture generally.

(v.) *Tite Prize.*

For the Tite Prize—being a Certificate and, under conditions, £30 for travel in Italy—seven designs for the interior of the east end of a large Town Church, were submitted under the following mottoes :—

1. Bramantino.
2. Crescendo.
3. Device of three circles.
4. Idoneus.
5. Incognita.
6. Modern worship.
7. Omnia honeste et secundum ordinem fiant.

The Council have awarded the Certificate and, subject to the conditions laid down, £30 for travel in Italy, to the author of the design (7) bearing the motto "Omnia honeste et secundum ordinem fiant" ; and the sum of five guineas to the author of the design (1) bearing the motto "Bramantino."

Prize for Design and Construction.

Grissell Medal and £10. 10*s.*

For the Grissell Gold Medal three designs for a timber roof over a hall or staircase were submitted, under the following mottoes :—

1. Construction.
2. Crab in two circles.
3. Patria.

The Council, while regretting that none of the three designs submitted are worthy of the Grissell Gold Medal, have awarded the sum of five guineas to the author of the design (2) bearing the device of a Crab in two circles.

In witness whereof, the Common Seal has been hereunto affixed, this ninth day of January 1893, at a Meeting of the Council.

Seal

J. Macvicar Anderson, *President.*
James Brooks, *Vice-President.*
Campbell Douglas, *Vice-President.*
Wm. Emerson, *Hon. Secretary.*

William H. White,
The Secretary of the Royal Institute.

The sealed envelopes having been opened, the names and addresses of the successful competitors were found to be as follows :—

Institute Silver Medal (Essays).

Florentine.—Thomas Rowland Hooper [*A.*], Station Road, Redhill, Surrey (£5. 5*s.*).

Persevera per severa.—Christopher Bernard Hutchinson [*A.*], 102, Holland Road, Kensington, W. (£5. 5*s.*).

Institute Silver Medal (Drawings).

Saint Kentigern.—George Smith Hill, 8, West End Park Street, Glasgow (Institute Silver Medal and £10. 10*s.*).

Soane Medallion.

Inexorabile Tempus.—Arthur Thomas Bolton [*A.*], 2, The Sanctuary, Westminster, S.W. (Medallion and, under conditions of foreign travel, £100).

Loco.—James Scott Stewart, 29, Camberwell New Road, S.E. (Medal of Merit and £10. 10*s.*).

Ad rem.—Alfred Charles Houston [*A.*], 13, Furnival's Inn, E.C. (Medal of Merit).

Tite Prize.

Omnia honeste et secundum ordinem fiant.—Charles Archibald Nicholson, 11, Beaumont Street, W. (Certificate and, under conditions of travel in Italy, £30).

Bramantino.—Robert Smith Dods [*A.*], 3, Vernon Place, Bloomsbury, W.C. (£5. 5*s.*).

Grissell Gold Medal.

Crab in two circles.—William Tait Conner [*A.*], 9, Scott Street, Garnethill, Glasgow (£5. 5*s.*).

A Paper by Mr. Andrew N. Prentice [*A.*], (*Soane Medallist* 1888), on "Tours in Spain and "the Island of Majorca" was read by the author. Whereupon it was, on the motion of Mr. R. Phené Spiers [*F.*], seconded by Mr. Henry Dawson [*F.*], and supported by Mr. Thos. Blashill [*F.*], Mr. Alex. Payne [*F.*], and the President,—

Resolved, that the thanks of the Institute be recorded to Mr. Andrew N. Prentice for his Paper.

Mr. Prentice having acknowledged the compliment, the Meeting separated at 9.45 p.m.

MINUTES. VI.

At the Sixth General Meeting (Ordinary) of the Session, held on Monday, the 16th inst., at 8 p.m., Mr. J. Macvicar Anderson, *President*, in the Chair, with 21 Fellows (including 8 members of the Council), 43 Associates (including 2 members of the Council), 2 Hon. Associates, and 45 visitors,

the Minutes of the Fifth General Meeting (Business) held on the 9th inst. were taken as read, and signed as correct.

The following members, attending for the first time since their election, were formally admitted and signed the Registers of Fellows and Associates respectively, namely:—Joseph Lavender (Wolverhampton), *Fellow*; Charles William Baker, Harold Brakspear (Corsham, Wilts), and John Melville Keith, *Associates*.

Professor Aitchison, A.R.A. [*F.*], presented the Subscription Portrait of Mr. Alfred Waterhouse, R.A., Ex-President, painted by Mr. W. Q. Orchardson, R.A. [*H.A.*], which, having been unveiled, was accepted by the President on behalf of the Royal Institute.

The President delivered an Address to the students on "Some Responsibilities of the Archi-" tect" [see p. 133], and the Hon. Secretary read some "Observations on the students' Works" [see p. 140]. Whereupon, on the motion of Mr. John Slater, B.A. Lond. [*F.*], it was, by acclamation,

RESOLVED, that the thanks of the Institute be recorded to Mr. J. Macvicar Anderson, *President*, and to Mr. Wm. Emerson, *Hon. Secretary*, for their Addresses.

The President, having acknowledged the compliment on behalf of the Hon. Secretary and himself, made the following presentations:—

ASHPITEL PRIZE 1892 (Examination in Architecture): Books value £10. 10*s.* to Mr. ALFRED C. HOUSTON [*A.*]. Additional prize of books value £5. 5*s.* to MR. HAROLD BRAKSPEAR [*A.*].

SOANE MEDALLION 1892: Cheque for £50, being second moiety of the £100 for travel, to Mr. HEBER RIMMER.

OWEN-JONES STUDENTSHIP 1891 and 1892: Certificate and cheque value £25, being second moiety of the £50 for travel in 1892, to Mr. FRANCIS W. BEDFORD [*A.*].

GODWIN BURSARY 1892: Medal and cheque value £20, being second moiety of the £40 for travel, to Mr. T. LOCKE WORTHINGTON [*A.*].

TITE PRIZE 1892: Cheque for £15, being second moiety of the £30 for travel, to Mr. T. ROGERS KITSELL [*A.*].

The President then proceeded to present the Prizes and Studentships for 1893, in accordance with the award made by the Council [see pp. 153, 154], viz.:—

INSTITUTE SILVER MEDAL AND TWENTY-FIVE GUINEAS (Essays): Not awarded.

Cheque value £5. 5*s.* to Mr. Thomas ROWLAND HOOPER [*A.*], for Essay under motto "Florentine."

Cheque value £5. 5*s.* to Mr. C. BERNARD HUTCHINSON, [*A.*], for Essay under motto "Persevera per severa."

INSTITUTE SILVER MEDAL AND TEN GUINEAS (Measured Drawings): to Mr. GEORGE S. HILL, for his drawings of the Crypt of Glasgow Cathedral, under motto "St. Kentigern."

SOANE MEDALLION 1893 and, under conditions of foreign Travel, One Hundred Pounds: awarded to Mr. ARTHUR T. BOLTON [*A.*], for his design for a Railway Station under motto "Inexorabile "Tempus."

Medal of Merit and cheque value £10. 10*s.* to Mr. J. SCOTT STEWART, for his design under motto "Loco."

Medal of Merit to Mr. ALFRED C. HOUSTON, [*A.*], for his design under motto "Ad "rem."

PUGIN STUDENTSHIP 1893: awarded to Mr. JOHN J. JOASS.

Medal of Merit: to Mr. THOMAS SLADDIN.

Honourable Mention: to Mr. HAROLD BRAKSPEAR [*A.*].

OWEN-JONES STUDENTSHIP 1893: awarded to Mr. ALFRED H. POWELL.

GODWIN BURSARY 1893: awarded to Mr. BANISTER F. FLETCHER [*A.*].

TITE PRIZE of a Certificate and, under conditions of Travel in Italy, Thirty Pounds: awarded to Mr. CHARLES A. NICHOLSON for his design for the Interior of the east end of a large Town Church under motto "Omnia honeste et secundum "ordinem fiant."

Cheque value £5. 5*s.* to Mr. ROBERT S. DODS, [*A.*], for his design under motto "Bra-"mantino."

GRISSELL GOLD MEDAL AND TEN GUINEAS: Not awarded.

Cheque value £5. 5*s.* to Mr. W. TAIT CONNER [*A.*], for his design for a Timber Roof over a Hall or Staircase under the device of a Crab in two circles.

The business having terminated, the Meeting separated at 9.50 p.m.

BIBLIOGRAPHICAL NOTES.

In glancing through Mr. J. R. Boyle's *Comprehensive Guide to the County of Durham* (London: Walter Scott), the first thing that occurs to one is, perhaps, a want of proportion in its arrangement. Out of a total of seven hundred and thirty-three pages, one hundred and thirty-four are devoted to the preface and introduction, two hundred and sixty-five to the city of Durham, and out of the latter nearly two hundred pages deal solely with Durham Cathedral, thus only leaving three-sevenths of the volume for the exposition of the county itself, which is, archæologically, so interesting, apart from its principal city. Though it may not be that Mr. Boyle has done quite justice to his work in this arrangement, the city and the Cathedral of Durham offer so much material to the archæologist and antiquarian that he may

readily be pardoned for having neglected places of smaller interest. The book contains two excellent maps—one of the county and one of the city and its suburbs; and ground plans of Durham Castle and Cathedral. Another work of Mr. Boyle has also been added to the library—*The Cathedral Church of St. Nicholas, Newcastle-on-Tyne* (same publisher). In this little handbook Mr. Boyle has exhibited his usual faculty for original research; and it contains numerous illustrations from the pencil of Mr. W. H. Knowles.

The Geographical Journal for this month, which includes the Proceedings of the Royal Geographical Society, contains numerous maps, one illustrating Dr. Nansen's recently delivered lecture, "How can the North Polar Region be "crossed?" a full report of which is also given. The Journal states that M. Janssen has reported to the Paris Academy of Sciences on the progress made last summer with the work of erecting an observatory on Mont Blanc, the highest summit in Europe. It appears that, after making tunnelling experiments without reaching rock, it was decided to build the house upon the snow, it being proposed to make the observatory in the form of a truncated pyramid, the whole lower storey being embedded in the snow, thus securing a relatively large base to resist the pressure of the wind on the upper part.

Sanitary Ventilation was the title of a Paper which Mr. Edward Tidman read before the Surveyors' Institution, a report of which and of the subsequent discussion appears in the Institution's *Transactions* (vol. xxv. part iii.). Judging from the criticisms made in the speeches which followed, opinion is still very much at variance as to the proper methods of ventilation.

The Catalogue of the Denver Architectural Sketch Club Exhibition 1892, besides a list of the exhibits, contains what is more interesting to those who are not likely to have seen them—many capital sketches. If the appearance of the catalogue is somewhat marred by obtrusive advertisements, the whole nevertheless gives the impression that the Denver architects are gentlemen of considerable artistic feeling and enterprise.

Transactions of the Edinburgh Architectural Association (vol. ii., No. 3) contains an opening address of the President, Mr. W. W. Robertson, entitled "Our Duty in Respect of Ancient Build-"ings." Mr. Robertson summed up one's duty in the single word "preservation"—preservation under the most favourable and suitable conditions, for the longest period possible, and for the instruction and delight of the greatest number possible. "I plead, therefore," said Mr. Robertson further, "most earnestly for the careful preservation of our "old buildings, and above all for their preservation "from 'restoration.'"

The Journal of the Royal Society of Antiquaries of Ireland (part iv., vol. ii.) has an interesting article entitled "Notes on the Ancient "Monuments Protection (Ireland) Act 1892, and "the previous legislation connected therewith," by Mr. Robert Cochrane. In this article Mr. Cochrane states the curious fact that while Ireland has three Acts of Parliament dealing with National Monuments, England has only one.

A Paper entitled "Destruction of Church Monu-"ments in Essex," which Mr. H. W. King read at a meeting of the Essex Archæological Society so long ago as the 8th March 1890, appears in vol. iv., part iii. of the *Transactions* of that Society. Mr. King principally refers to the destruction of monumental brasses, and relates instances which have occurred during the last and present century; but he complains also of the burial of sepulchral slabs beneath a new pavement without a record having been made of the fact. As Mr. King points out, the names and dates recorded upon sepulchral stones are often the only clues which serve as references to the national archives, and are of the highest importance to the historian and historic genealogist, the finding of one inscribed stone having not infrequently proved the starting-point to a long series of valuable historical discoveries. Mr. King indulges in an invective against the modern church restorer, contrasting him with the mediæval artist "with his ex-"quisitely fine feeling and sense of propriety." It is due, however, to the modern restorer to state that the most recent case which Mr. King reports against him occurred twenty years ago.

Amongst other works added to the library are *Proceedings of the Society of Biblical Archæology*, vol. xv., part ii.; *Il Leoni di San Marco*, by Giacomo Boni; and the report of a paper "On "the Laying-out of Towns," read before section J at a meeting of the Australian Association for the Advancement of Science in Melbourne, by Mr. John Sulman, of Sydney.

ADDRESSES WANTED.

Audsley: George Ashdown [*F.*].
Ballard: William Washington [*A.*].
Barker: John Theodore.
Clare: Edwin [*F.*].
Knowles: George [*F.*].
Cazalet: Charles Harvey Hinrich [*A.*].
Hooker: Walter [*A.*].
Hudson: Walter Merceron [*A.*].
Martin: William James.
Maylard: Charles G. [*A.*].
Mayo: Ernest Alfred [*A.*].
Peter: John [*A.*].
Roberts: Thomas Price [*A.*].
Fiorelli: Cavaliere Giuseppe [*Hon. Corr. M.*].

*** The new address of Mr. George Hornblower [*A.*] is 20, Fitzroy *Street*, W., not *Square*, as erroneously stated on p. 132 *ante*.

Alfred Lovejoy, Associate.—The decease on the 14th inst. of Mr. Alfred Lovejoy is announced. The late Mr. Lovejoy was elected an Associate in 1875, and was also a Fellow of the Surveyors' Institution. He was in his fifty-first year.

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THE JOURNAL OF PROCEEDINGS OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

VOL. IX. NEW SERIES — No. 8 — 2 FEBRUARY 1893

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SESSIONAL NOTES.

Professional Registration.

Want of space, if not of opportunity, has prevented a reference here to a remarkable leading article which appeared in *The Times* on the 6th ult., on a subject no less sacred than the training of musicians. One has laughed prodigiously over the old story of the French cook who gravely explained to a philosopher that *on nait rôtisseur*, and a few who do not understand the delicacies of argument have even smiled at the successful artist who informs his public, to use the current jargon, that he was born, not made. Yet no one has ever attempted to controvert the fact that intuitive capacity is absolutely necessary to men who hope to become not only great but even ordinary musicians. Nevertheless the most irreverent things have recently been said on this subject by musicians themselves, and commented on seriously by the first newspaper in Europe. Dr. Mackenzie is alleged to have expressed the opinion that musicians ought to be "all round, general practi-" tioners," and his commentator says that the extraordinary diffusion of musical training of late throughout the kingdom has sharpened the obligation upon the professional followers of the Art to fit themselves for association in the world on equal terms with the amateur; and for this purpose a large number of musicians, acutely conscious of the necessity of a general improvement of the professional status, are furthering a movement for the registration of musicians. "They are anxious," adds *The Times*, "to cherish an *esprit de corps*, of which the public will share the benefit " with them. The institution of a Register will not multiply musical genius. Me-" diocrities will intrude into it, and now and then a black sheep. But on the whole " it cannot but afford a protection against positive imposture, which pupils on the " look-out for teachers do not now enjoy. If fraud in the concoction of credentials " has been practised, a Register affords an accessible mode of detecting and checking " it. Above all, it will give the rank and file of practitioners themselves a sense that " a musician need not have established a claim to be an illustrious master in order to " assert a place within the pale of professional recognition, sympathy, and respecta-" bility."

The Nottingham Society.

Mr. J. Alfred Gotch, F.S.A., has been giving a lecture before the Nottingham Architectural Society, on the Humorous Aspect of Architecture; and Mr. R. Evans, the President, took occasion when introducing Mr. Gotch to the company assembled at the Conversazione to hear the lecture, to state that the Society had been in existence thirty years, having started with twenty-

two members. An ex-President, Mr. A. N. Bromley, when thanking the lecturer for his collection of humorous instances, also took occasion to describe some of his personal experiences of the Architectural Room at the Royal Academy, and thereby apparently added to the humour of the evening. Another of the attractions of the Conversazione was an exhibition of architects' drawings which had been contributed by Mr. Waterhouse, R.A., Mr. Aston Webb, Mr. Ernest George, Mr. R. Phené Spiers, F.S.A., and others, including the lecturer, Mr. Gotch.

The Dundee Institute.

Dundee, the capital of Eastern Scotland from a professionally architectural point of view, is very much alive at present. An American citizen, in temporary occupation of the city of Edinburgh, would probably say that some at least of the Dundonians were "live" men. On the 19th ult. Mr. David Cunningham, M.Inst.C.E., delivered a lecture before the Dundee Institute of Architecture, Science, and Art, on "Harbours and the Discharging of Vessels," in which he very fully described the ancient practice of constructing works that would last for an indefinite period, the materials being of a most indestructible character; and he argued that such a policy, were it blindly accepted by moderns, would be a mistaken one, for, at the present time of development and change, works constructed in an adamantine manner gave the most trouble in remodelling. In these days of transition he looked upon the employment of enormous masses of stone or concrete for docks as inadvisable; he advised the erection of structures by the Harbour Trustees of Dundee mainly of timber, for timber wharves might be fortified, repaired, or altered at any moment, as the exigencies of trade and the increase in the size and capacity of trading vessels might demand. Again, only a week after, on the 26th ult., the Dundee Institute forgot for the moment the actualities of the present in order to hear Mr. A. H. Millar, F.S.A. Scot., expatiate on some of the quainter portions of Dundee in the past and compare them with the structures which showed the present style of modern buildings; and on the 23rd inst. Mr. Arch. Macpherson, an architect of Edinburgh, is to read a Paper before it on "The Theories of Architectural Proportion." Moreover, the Dundee Institute has not been idle in advancing the development of a local architectural curriculum, under the auspices of the Dundee and District Association for the promotion of Technical and Commercial Education. This course is one of three years for the Lower Grade Certificate, the first year being devoted to Freehand Drawing and Shading, Practical Plane and Solid Geometry, and Mathematics; the second year to Modelling, Perspective, Building Construction (elementary), Theoretical Mechanics, and Surveying; the third year to Graphic Statics, Building Construction (advanced), Strength of Materials, and Elementary Architecture. For the Higher Grade Certificate a somewhat similar order is recommended to be followed, with an extension of time to four or even five years, so as to include the higher subjects; and the Higher Grade students study the Principles and History of Ornament and architectural decoration. The same Association has also a course of Building Construction and Decoration (wood and stone work), with other technical courses, out of which it would seem possible, with a little further outlay of earnestness on the part of the architects, to establish in Dundee a complete curriculum of architecture.

A footnote misunderstood.

In the last issue of this Journal, on page 145, there appeared, in a footnote to the Hon. Secretary's "Observations" on the Students' drawings, a reference to the Report of a joint Committee of Organists and Architects which was printed in *The R.I.B.A. Journal* [Vol. VII. pp. 325–9]. The footnote, which was a mere statement of fact, and which was inserted without the slightest intention of reflecting on the character of that Report, was deemed necessary in order to remove an erroneous impression, which had obtained currency, that the Report in question (reference having been made to it in the published conditions of the Tite Prize programme for 1892–93) was a Council Report, or at least one that had been finally adopted by them.

The Prize Drawings.

The selection made from the Drawings which gained the Prizes and Studentships of the Institute for 1892–93, consists of 21 strainers in all; and with these are included 24 mounted specimens of the "Testimonies of Study," submitted by Probationers for admission to the Intermediate Examination. Mr. G. S. Hill's "Crypt of Glasgow Cathedral" (4 strainers), Mr. A. T. Bolton's "Design for a Railway Terminus" (4 strainers), Mr. J. J. Joass's drawings and sketches (4 strainers) which gained him the current year's Pugin Travelling Studentship, Mr. A. H. Powell's drawings and sketches (4 strainers) which gained him the current year's Owen-Jones Studentship, and Mr. C. A. Nicholson's design for the East End of a town church (3 strainers) which gained him the current year's Tite Prize, with one strainer each of the work submitted by Mr. T. A. Sladdin and Mr. Harold Brakspear for the Pugin Studentship, make up the total of selected drawings. The specimen "Testimonies of Study" are those of Mr. A. E. Corbett, Mr. H. W. Coussens, Mr. E. R. O. Davis, and Mr. A. R. Hennell, Students of the Institute. The whole collection was exhibited in Newcastle last week, and it is in Sheffield this week. Thence it will be sent to Liverpool, Manchester, Glasgow, Dundee, Leeds; and afterwards probably to Nottingham, Leicester, Exeter, and Dublin.

PROCEEDINGS.

Monday, 30th January 1893.

Seventh General Meeting (Ordinary).

[Mr. J. Macvicar Anderson, *President*, in the Chair.]

ADVANTAGES OF ADOPTING A GENERAL SCHEME IN MAKING IMPROVEMENTS TO LONDON STREETS.

By Arthur Cawston [*A.*].

Mr. President and Gentlemen,—

When we as architects remark the convenience and the spaciousness of well-ordered Continental towns, we cannot resist a feeling of admiration for their grandeur, and a just feeling of pride in our foreign professional brethren whose ability and labour have produced such splendid results. But if our *confrères* abroad are entitled to praise for the splendid works they have achieved, can we here in London claim any such praise for what *we* have done towards the improvement of our capital?

When last year our Government tardily attempted to remedy the block in the law business of the country, they referred the question to a council of judges, who, as heads of the legal profession, were evidently considered responsible for the defects which caused the block. If an epidemic of typhoid fever break out in London, through a contaminated water supply, or if any other infectious disease ruin the health of our towns, surely medical officers of health must be held responsible, as they should have warned the authorities of the danger, and used their influence to prevent it.

In the same way with regard to architecture, we cannot get away from the fact that any impartial observer must consider that we, more than any other body of Londoners, are responsible for the inadequate and inartistic streets of our capital. Of course we who are in the secret know (to our cost) that the real reason why London has lagged behind in the march of improvement is to be found in the fact that we have had no real municipal government, and naturally no municipal enthusiasm. Unfortunately, however, this is not universally appreciated, and so we architects continue to suffer reproach for the absence of convenience and dignity in our streets.

However, we have now a popularly elected governing body, and, as every one anticipated, we are getting men of distinction to interest themselves in our wealthy and historic capital. All excuses for procrastination therefore are gone, and London ought now to become what her inhabitants desire, and what her architects, we flatter ourselves, are able to make her. For the main responsibility for the architectural appearance of our town cannot rest entirely with a body of gentlemen the majority of whom are, or are not, elected every few years, and who are always occupied with a thousand and one other weighty problems of daily government. Such responsibility should, in my opinion, rest largely with the organised representative body of the profession, one of whose important functions should surely be to advise on the architectural improvement of London; and another to sit in judgment on the work that is carried out.

Let us then—encouraged by the happy constitution of our new popularly-elected government—and undaunted by many attempts that have from time to time been made and proved ineffectual—make one further attempt to prepare for such a reformation in the architectural appearance of our capital as will at any rate bring it up to the level which has been reached elsewhere.

It will probably occur to every one of my hearers that the best examples of city improvements are to be found abroad. But I want you to clearly understand that if equally good examples were to be found at home, I should prefer to study them. I give place to no man in my admiration of the artistic works of my brother architects of modern times, and I am proud to belong to a profession which includes the names of Sir Gilbert

Scott, Sir Charles Barry, George Edmund Street, and many others who are still among us. Such names, however, are associated with isolated works, and for that architectural work which comprehends the regeneration of cities it is essential to look for examples abroad. This Institute realises this necessity in practice by sending some of its most promising students over the seas year by year. By this means we have reported to us the progress that takes place in all that pertains to architecture throughout the civilised world; and from this, and other sources, we find that the capitals of Europe have been, or are being rapidly, transformed into well-ordered, convenient cities. In carrying out the work some general principles, fixed and immutable in their nature, must have been adhered to, and, if similar principles can be ascertained and applied to London, we shall without doubt be able to convince our councillors that our capital can yet be made to rank amongst the most convenient and beautiful, as well as amongst the most wealthy capitals of the world.

Of recent contributions to this Institute on foreign cities which particularly refer to the subject before us, I need hardly remind you of that from our members, Messrs. Farrow and Blashill, who in 1889 gave us an interesting account of those splendid extensions which have already taken place in Vienna; or that in the same year, Mr. Francis Hooper, as Holder of the Godwin Bursary, studied in Paris, and delivered before this Institute a most valuable account of Building Control and Administration in France. In his Paper were enumerated the series of laws under which our industrious and thrifty neighbours have nearly completed the rebuilding and transformation of their capital. A vast transformation indeed, which has perhaps never been more powerfully described than by Mr. Albert Shaw, a most competent critic of municipal institutions, who writes as follows:—

"In the work of transforming the labyrinthine tangle "of narrow, dark, and foul mediæval alleys into broad "modern thoroughfares, and of providing those ap- "pointments and conveniences that distinguish the "well-ordered city of our day from the old-time cities, "which had grown up formless and organless by cen- "turies of accretion—in this brilliant nineteenth-cen- "tury task of reconstructing cities in their physical "characters, dealing with them as organic entities, and "endeavouring to give such form to the visible body as "will best accommodate the expanding life within, "Paris has been the unrivalled leader. Berlin and "Vienna have accomplished magnificent results in city- "making, and great British towns—Glasgow, Birming- "ham, Manchester, and others—have, in a less ambi- "tious way, wrought no less useful reforms; but Paris "was the pioneer. French public authorities, architects, "and engineers were the first to conceive effectually "the ideas of symmetry and spaciousness, of order and "convenience, of wholesomeness and cleanliness, in "urban arrangements."

The grandeur and masterful thoroughness of the work prove that Paris as it exists at present is the modern model city London is probably destined to copy, as it becomes more and more necessary to pile up many more human beings on a square mile, without impeding a constantly increasing circulation.

I suppose we shall all agree that for this reason, and because of the great strides in sanitary knowledge during recent years, it is essential that our metropolis should, as far as possible, be improved and adapted to the requirements of to-day. The principal reasons for such improvements may be briefly indicated under the five following heads: (1) The benefits to health, (2) to traffic, (3) to the labouring classes, (4) to the metropolis generally, and (5) to the nation. It is obviously impossible that within the limits of a Paper such as this the whole of these reasons for improvement can be adequately treated, but I have attempted this in a work which I shall shortly publish. This evening, and before reaching the main part of my Paper, I can only ask you to consider *the benefit to the health of the community that would arise from rational improvements.*

We all know what has already been done in reducing London's death-rate, but that rate in some of those districts where the population is most dense, such as Bethnal Green, still remains at 40·0 per thousand. It is just in these districts that one of the greatest dangers to the health of London lies. They are the spots on which epidemic diseases fasten, and until they are transformed, progress in lessening the general death-rate will continue to be arrested. Not only so, but London, which was once in the van of sanitary progress, has lost her place, and until the remedy be found will fall further and further behind cities to which she formerly showed the way.

The following figures, which I have repeated on the screen before you, are taken from the annual summaries of deaths issued by the Registrar-General since 1874, from which date only the death-rates of foreign cities have been included in the summaries:—

Death-rate per thousand in twelve leading European Cities in 1874 *and* 1890–1.

Cities.	1874.	1890-1*.	Decrease of death-rate.
1. Berlin	32·9	20·9	12·0
2. Liverpool	32·0	23·6	8·4
3. Birmingham	26·8	19·7	7·1
4. The Hague.	26·5	19·5	7·0
5. Glasgow	31·1	25·3	5·8
6. Turin	26·7	22·8	3·9
7. Rome	27·5	23·6	3·9
8. Brussels	23·9	21·5	2·4
9. London	22·5	20·3	2·2
10. Paris	22·4	21·6	0·8
11. Vienna	24·6	24·6	Nil.
12. Dublin	26·0	26·5	Increase. 0·5

These figures clearly show the improvement that has taken place in many large cities, and they also show that no material alteration has

* During the years 1890–1 influenza was prevalent in parts of Europe, and affected the death-rate materially. For this reason where the rate seriously differed in any city during these two years, the lower rate is quoted as being closer to the normal rate.—A. C.

taken place in the health of London and Paris during the same period. The reason of this is, I think, to be found in the fact that radical changes were being made in those cities which show marked improvement, while in London and Paris little change took place during that period.

For instance, between 1875 and 1885, Birmingham transformed about eighty acres in the centre of the town from squalid slums into fine thoroughfares. Mr. Chamberlain, in his evidence before the Royal Commission on the Housing of the Working Classes, stated, "The effect on the death-"rate has been very remarkable indeed. The "eight most insanitary streets in the area before "the scheme averaged for the three years before "the proposals were in operation, 53·2 per thou-"sand; since then in the last three years the "same streets have averaged 21·3 per thousand, "and the scheme in part, with the other causes "to which I have referred, throughout the "borough of Birmingham have led to a general "reduction of the death-rate throughout the "borough from 26 in the thousand for the three "years 1873, 1874, and 1875, to 20 in the thousand "for the three years 1880, 1881, and 1882."

In Glasgow the City Chamberlain states that the great municipal work of breaking up the dense fetid closes in the old central districts of the city, together with improvement in sanitary administration, has resulted in the annual saving of the lives of 1,271 inhabitants. This great municipal work was also completed during the period referred to. Similar sanitary and street improvements were being vigorously carried out during this same period in Berlin, Liverpool, and The Hague.

No doubt these great strides of improvement were taken in following the example of London and Paris. London had, before this period, by the construction of her great sewerage works and other sanitary improvements, reduced her death-rate materially, and Paris, by abolishing her slums, and transforming herself into a city of wide and beautiful streets, had also reduced hers. But during the later period above referred to, both London and Paris more or less rested on their onward march, for no one can believe that the London death-rate of 20·3 or the Paris death-rate of 21·6 is the ultimate goal of sanitary reform. Many of us, indeed, believe in the possibility of reducing these figures to one-half. That this is no dream is shown by the death-rate of Hampstead, which is 14·7, and by the striking experience of the Artisans' Dwellings Company, which is able to boast of a death-rate in its tenement blocks of 12·85.

In attempting to carry out extensive alterations in conservative London, many great difficulties and expenses will have to be faced, most of which would not have existed if in the past there had been efficient municipal control. The want of a general plan, showing future street alterations authoritatively settled, has also undoubtedly been the reason why many streets lately formed are not for the general convenience, have not been financially successful, and have neither created enthusiasm amongst the public nor brought credit to the authorities.

Let us examine in detail, and under the following heads, the reasons for having a comprehensive plan, and as complete a comprehensive plan as possible. 1. For discovering the *causes* of our present inconveniences. 2. For producing the *best* improvements that can be produced. 3. For forwarding them as *rapidly* as possible. 4. For making them as *economically* as possible. 5. For *æsthetic* reasons.

1.—The importance of a general plan for discovering the causes of our present inconveniences.

Immediately a general plan of London is examined by any one anxious to solve the many problems of our present inconvenient streets, to discover where slums are mostly to be found, and the reasons that have prevented improvement, he must be first struck by the fact that many slums exist in the very centre of our capital on sites which, in a well-arranged city, would be the most valuable.

The cause of this is soon apparent, and, as usual, the impediment to progress is the English law. Look at the shape and extent of the "Devil's "own" estates, which extend a distance of about three-quarters of a mile from Theobald's Road on the north to the Thames Embankment on the south, and which present a barrier against any attempt at opening up the most crowded districts of central London, of admitting to them more light and air, or of allowing any better means of communication between the City and the West End.

Wherever barriers to free circulation exist, whether in a river, in the human frame, or in a city, there will be formed an aggregation of scum, of disease, or of slums. Now such a want of free circulation exists in central London on both sides of the Inns of Court, and hence the unpardonable squalor peculiar to much of the central square mile of our capital. The first urgent need for improvement, therefore, as will be perceived by every earnest student of the map of London, is the opening up of these districts by broad thoroughfares, which must of course pierce the sanctuaries of the law.

Other impediments to free circulation will, unfortunately, be found.

South of the Thames, railway viaducts and embankments divide the metropolis into sections, and sever contiguous districts, when the trouble, danger, and nuisance thus caused would have been entirely avoided by making the lines in cuttings or tunnels as on the north side of the river.

Superb public parks and gardens are so enclosed and so difficult of access as to form most serious impediments to street improvement, and the full benefit of their presence is denied us, whilst their surrounding streets are filled to overflowing.

A wide tidal river hems in, and is hemmed in by, stifling purlieus that have become crowded

and neglected for want of opening up by wide streets and additional bridges.

These are but a few of the difficulties that must be removed if London is to be made convenient and healthy. If it is also to be made beautiful, other difficulties have to be overcome, for we find many public and other important buildings hidden away in tangled and crowded streets, as to be almost unapproachable, and entirely forgotten. So forgotten, indeed, that I must mention specimens, such as the Mint, the Record Office, Guildhall, Westminster Town Hall, and many of our county courts and coroners' courts.

Whilst many hills in our home counties offer sites which are in every way suitable, we find here in central London asylums for lunatics, schools for the blind, homes for foundlings, occupying acres of unsuitable sites, impeding surrounding progress, and depriving their hardworking neighbours of healthy homes.

Such unintelligible and widespread impediments as these, and many similar ones, will not easily be discovered if improvements are still to be considered in driblets, such as a street half a mile here and three quarters of a mile there: whereas they become apparent immediately a general plan of improvements is taken in hand.

2.—THE IMPORTANCE OF A GENERAL PLAN FOR PRODUCING THE BEST IMPROVEMENTS THAT CAN BE PRODUCED.

Probably the best complete scheme of London improvements should embody—(*a*) The complete utilisation of every district of London's enormous area for its most valuable purpose; (*b*) the creation of continuous arteries, sufficiently wide for the future as well as for to-day, and judiciously placed, so as to connect the most important centres of business and habitation, and the railway termini.

(A.) *The complete utilisation of every district for its most valuable purpose.*—This consideration has up to the present time been entirely lost sight of whenever improvements have been considered; consequently the rehousing of the displaced working population, a question inseparable from improvement schemes in London, has always been a most serious difficulty. As it seems most probable, for many reasons, that improvements will be carried out in the slums before elsewhere, this question still remains of the first importance.

I know that it is necessary for the working-classes to live within a reasonable distance of their work; but surely it is not consistent with the general welfare to give up the very central square mile of London to such purpose, especially as more comfortable and healthy dwellings can naturally be provided where land is so much cheaper, as in parts of Southwark, Lambeth, Clerkenwell, and Marylebone.

If a map of London be studied, acres upon acres of land which could be made available for workmen's dwellings, and which are most likely always to remain the most valuable and suitable for this particular purpose, are at once discovered within a mile of the centre of the metropolis. Such sites are occupied by the Foundling Hospital, the military school at Chelsea, and many similar institutions, Bethlehem and St. Luke's Lunatic Asylums, many gas-works and water-filtering beds.

Would it not be well to remove these present occupants into the suburbs or the country, and clear the sites for labourers' dwellings? Some of us might regret the disturbance of old hospitals, but a larger majority of us regret more sincerely what is apparently the only alternative, namely, the removal of workmen to the suburbs, and the consequent loss of time and money in conveying them to and from their work.

I have calculated that fifteen sites, which I propose should be gradually devoted to this purpose, contain an area of 144 acres. After deducting one-fifth of this area for additional broad roadways, and assuming that the same density per acre will be as healthy on these sites as on the site of Peabody dwellings and playgrounds in Drury Lane, the extra number that can be accommodated within one mile of the centre of the metropolis is found to be 127,000 men, women, and children.

(B.) *The creation of continuous arteries, sufficiently wide for the future as well as for to-day, and judiciously placed, so as to connect the most important centres of business and habitation, and the railway termini.*—Immediately a comprehensive plan is studied, the small number of our main streets, and the shortness of our other streets, is at once manifest. As Mr. Albert Shaw remarks, "London, like all other old "cities, is a vast tangled network of streets that "for the most part begin nowhere and end no-"where."

Without doubt, the longer and more uniform streets are made, the more valuable they become for many reasons. But length and uniformity can only be obtained by first planning streets to a small scale on a complete plan of the whole county.

In many cases, too, quite insignificant clearances at various points are only required in order to render many of our side streets suitable for relieving the present overcrowded main streets to a very considerable extent.

Every surveyor knows what has been the cause of these small obstructions, and how they are still being created by the absurdities and difficulties that exist in connection with laying out building estates in London, especially in the suburbs. For instance, no matter how irregular may be the shape of an estate which is to be developed, the owner is allowed, in order to follow the contour of his boundaries, and to cover with houses every corner of his property, to make his roads tortuous as snakes so long as they lead from one existing road to another. He is not, however, allowed to form any road which stops at his own fence, no matter how essential such road may be for the development of the adjoining properties.

Thus more and more unhealthy and badly ventilated districts are being daily created, whereas if a settled plan were adopted, the development of

each property would be a matter of general importance, and form a part of the general scheme.

3.—The importance of a general plan for forwarding improvements as speedily as possible.

If a comprehensive plan were authoritatively adopted in London, no single building in the whole county could be rebuilt without reference to the revised lines of frontage as laid down on that plan, or without becoming an integrant part of the grand city that it would be the ultimate object of the plan to produce.

That such a system would be of paramount importance for speedily effecting improvements, will be shown by the following comparisons.

The annual average number of notices for new buildings and rebuildings issued to district surveyors during the last three years has been 21,932. As nearly all our streets admittedly want improving, as many central districts admittedly want entirely re-modelling, and as all districts newly created in the suburbs are, at present, created without any reference whatever to the general convenience, we may fairly assume that one-fourth of these 21,932 annual notices refer to re-buildings which would each give an opportunity of advancing, under a comprehensive plan, the complete scheme for the improvement of London.

On the other hand, the approximate total number of houses that will be removed by the Council Broadway improvement is 1,250, and, what with legal and parliamentary delays, this improvement may take about five years to complete, from the time it was first made public.

This gives an *annual* average of 250 houses removed by this costly improvement compared to 5,500 opportunities for improvement which would *annually* and automatically arise immediately a comprehensive plan were adopted. I say automatically because in the one case every opportunity would come without legal expenses or delay connected with compensation for disturbances; whereas in the other case legal expenses and delays, and expensive compensations for disturbance, occur in the case of each property taken. If, moreover, a comprehensive scheme be delayed, not only will these 5,500 automatic and cheap opportunities for improving London be lost every year, but the very rebuilding on these sites will form the same number of impediments to be removed, each ten times as costly as the opportunities that are lost.

It is true that Ludgate Hill has taken about thirty years to widen, and I know that this improvement is used as an argument against the so-called "automatic" principle. The case of Ludgate Hill, however, is an abnormal one. The greater cost of the properties more recently acquired there have been due to the fact that Ludgate Hill has been allowed to remain, practically, the only main line of communication through that part of London. All the enormously increased traffic is forced through that artery, with the result that its frontage sites have increased in value to an unnatural extent.

4.—The importance of a general plan for making improvements as cheaply as possible.

Not only do the foregoing arguments prove the greater speed at which improvements can be made under a comprehensive scheme, but they also prove how a great saving in cost can be effected.

There are many other economic reasons for a comprehensive scheme.

For instance, when any isolated improvement is put in hand, it is necessary to calculate the approximate cost of the whole work, to borrow money to pay for it, to agree to complete it in a given time, and to refund within a certain number of years all that has been borrowed. In this way the cost of improvements is greatly augmented, for it not only includes the cost of the actual work, but a large annual amount for sinking fund, interest, and the accompanying expenses. If a comprehensive scheme is ever adopted, this running into debt will be totally unnecessary, for the Council would then be enabled to put just so much of the scheme in hand as the funds available for that purpose from the year's income would permit.

Again, one of the great impediments to street improvements, up to the present time, has been the terrible cost of acquiring properties, and it has been found again and again that whenever an improvement has been decided upon, speculators have bought up the property, have had drawings prepared for new buildings, have improved existing buildings, and put all possible legal impediments in the way for the sake of making the authorities pay largely augmented compensations. The economic importance of adopting a comprehensive scheme is here again apparent, for it would be impossible for any individual or even any syndicate to purchase all the land which will be affected by the whole scheme, consequently the Council would have so much choice that they could purchase small portions here and there whenever the owners wanted to sell or were willing to sell at a reasonable price. Mr. Chamberlain's experience on this point during the municipal improvements in Birmingham, as stated by him in his evidence before the Royal Commission on the Housing of the Working Classes, conclusively corroborates the correctness of this view.

It is also absolutely essential that a settled scheme should be adopted for another economic reason. As each new street is laid out, quadrants and places should be constructed with junctions left exactly where future new streets will eventually join them. A striking illustration of the want of this may be found in the case of the English Opera House recently erected in Cambridge Circus and Shaftesbury Avenue. This building has been placed exactly where a new street, which may become as important as Oxford Street or the Strand, should cross that circus.

As already stated, large and most valuable sites are still occupied with slums of the poorest description. Under a settled scheme the whole of these sites would gradually be put to their

proper uses, and the recoupment that would then arise from the sale of surplus lands would go far towards the economic success of the improvement.

A striking example of increased value has occurred at Chelsea, on the estate belonging to Earl Cadogan, who was advised on high authority to let a piece of ground at a ground rent of £85 per annum. Because the whole neighbourhood has been developed in a statesmanlike manner, land has increased so much in value, that the ground rent of this same piece of ground has been, within five years, improved by the leaseholder to £900 a year. Not only so, but certain adjoining land, which is held in trust for the public, has increased in value by the action of the noble neighbour to at least 300 per cent.

If a comprehensive plan of improvements were adopted, all the undeveloped land in the county would, as it became ripe for development, also be automatically, and thus economically, opened up in accordance with the scheme. Both the community and the landowner would benefit by this, the former by having its streets made in the most convenient position from a public point of view, and the latter by being guaranteed a greater number of important thoroughfares across his property.

5.—The importance of a general plan for æsthetic reasons.

The reasons I have already put forward are of a practical nature. I now give some æsthetic reasons.

(A.)—*For providing sufficient improvements without interfering with our ancient architectural monuments.* "The works of those," said Sir Joshua Reynolds, "who have stood the test of "ages, have a claim to that respect and veneration "to which no modern can pretend." This spirit of veneration, together with the knowledge that whatever improvements now made will be carried out in a time when ancient architectural monuments will be as jealously guarded as ancient sculptures and paintings, is a consoling thought when we think of the delays that have occurred in our street improvements.

Is it possible that any scheme *can* produce sufficient improvements to an ever-increasing metropolis like London, without of necessity doing away with well-known landmarks, which, be they ever so faulty, have naturally become endeared by familiarity? Undoubtedly, and at once—I say, Yes. For I know with what intense relief this will be received by antiquaries of a conservative nation, whose delight for comprehensive improvements has never been roused. What Londoner is there who would not regret any interference with St. Mary-le-Strand, with those awe-inspiring columns which denote the entrance to Exeter Hall, with the narrowness of Bond Street, or with those solid English walls which encircle the precincts of Marlborough House, Devonshire House, and the modern æsthetic Lowther Lodge? Such sights are to us as precious as a Lord Mayor's show—and do not let it be thought that I consider this anything but a compliment to the "sticks and stones," for I thoroughly endorse every word of the somewhat cynical article on that interesting and popular ceremony which appeared in *The Times* of November 10th last. By studying a comprehensive scheme it is soon discovered that sufficient lengthy arteries connecting the most important centres of business and habitation can be provided in such a way as would not only obviate the interference with our present main streets, or with such heirlooms and landmarks as I have mentioned, but would make these monuments more conspicuous by isolating them. For this reason alone such a scheme should commend itself to some of us.

(B.)—*For raising municipal enthusiasm.* What has been up to now the despair of all reformers of London municipal life? Has it not been the huge size of the city, and the supposed impossibility of uniting for one common object the inhabitants of its distant parts?

Can anything be more calculated to raise the pride and enthusiasm of all Londoners, and weld them together for one common object, than a really great scheme of improvement?

As each rebuilding in each district progressed, every Londoner would actually see a further development of that grand city all would have agreed to produce. Can one imagine the enthusiasm and pride that would be roused—some few years ahead—as the last block of houses in each new thoroughfare gradually came down, and for the first time an uninterrupted view of the new street with its palatial architecture was obtained?

This has proved to be the case both in Paris and in Birmingham.

Mr. Chamberlain, in his evidence before the Commission on the Housing of the Working Classes, said, when speaking of the transformation of Birmingham, "the original object was to carry "a wide street through the insanitary district, and "thereby to ventilate the whole district, because "nothing appears to be more absolutely true than "that wide streets contribute to the health of "great cities; they are, in fact, the lungs of the "place. In order to get anything like a through "ventilation it was necessary that this street "should be continued into the centre of the town, "otherwise it would have come out and been "blocked, as it were, by rows of lofty buildings. "But, in addition to that, the combination also had "the effect of cheapening what I may call the in-"sanitary part of the scheme, because by bringing "this poor district into communication with the "centre of the town, additional value was given "to all the property after the improvement was "made. Then there is a third reason, which is "not unimportant, and that is that by the com-"bination of these two things the scheme was "greatly popularised with the ratepayers. The "great cost of these schemes is, of course, the "great difficulty that local authorities have to face; "but by the combination of the two things—that "is to say, by providing what is a necessity for "very growing towns, and a great town improve-"ment at the same time—we were able to carry "our proposals, I may say, practically with una-

"nimity in the town. There was no opposition "whatever made to the proposals which were laid "before the town, or to the cost which it was "understood would be entailed upon the rates."

It would be impossible for me even to indicate to-night the many and weighty reasons which induced me to adopt six general principles, upon which I have already considered a draft comprehensive plan of London improvements, but I will acquaint you with those principles:—

1. To open up portions of our town-parks and some other open spaces.
2. To open out the most crowded districts, and admit more light and air.
3. To create many more great arteries connecting the most important centres of business and habitation.
4. To provide additional bridges over the Thames.
5. To facilitate the approaches to the several railway termini.
6. To open out as much as possible our public and ancient buildings, and to provide sites for new.

Such principles as these seem to me to be fixed and immutable. In order to show how they can be applied in the case of London, I exhibit here an Ordnance sheet, on which I have traced those new streets which to me seem to be ultimately essential for the development of the central portion of the capital.

The map * is also useful for the following purposes:—(*a*) To show the ground still uncovered which is available for the improvements proposed. Attention is directed to the extent of the space coloured pink, and to the fact that it must enormously reduce the cost of making the suggested improvements. Light blue colour on the map shows the existing buildings which occupy space required for the proposed roads. (*b*) To show those buildings which have all been rebuilt during the last four or five years on the sites of the proposed roads. These are coloured dark blue, and they have all been ascertained by actual survey. If a comprehensive plan and the frontage laws had been adopted so short a time ago as four years, all these rebuildings in this central portion of London would have formed opportunities of forwarding the general scheme without any legal delays or costs connected with compensation for disturbances, whereas they now form expensive obstructions to be overcome. (*c*) To indicate the principal public buildings that will be opened out or otherwise affected by the alterations. These are coloured dark red. (*d*) To show the proposed position of "Council Broadway." The centre of this is indicated by a thick dotted black line.

I venture to think that the true lesson to be drawn from this plan is that it shows how much a settled scheme would have accomplished almost automatically towards improving central London in the past few years, and how supremely important it is that the adoption of such a scheme should not be unduly delayed. The plan serves also to show what an unimportant part the proposed Council Broadway must play in any really effectual general plan of improvements. Apart from a general scheme this roadway has been boldly conceived, but alas! it only proves that the best isolated street improvements must be doomed to failure unless they form an integrant part of the whole street system. Let us apply to the proposed street the six essential principles for the general re-arrangement of the London streets, which I have ventured to lay down, in order to show how far this street will possess the vital requirements of an important thoroughfare.

1. So far from opening out the only open space in its immediate neighbourhood — the comparatively large area known as Lincoln's Inn Fields—the high buildings that are sure to be erected on both sides of the new street will form a yet more formidable barrier to the free circulation of air from that space. This open space should, if opened out by a great thoroughfare, become one of the most attractive spots in central London, even rivalling in its usefulness and beauty so famous a centre as the Place de la Concorde.

2. As regards opening up the poorest, unhealthiest, and most crowded districts in London, the proposed position of the street is excellent.

3. As to the width of the street: a hundred feet as proposed will probably be sufficient both for present and future needs, especially as, from its position, it can never become a really important thoroughfare, or an integrant part of any complete system. As to the length of the street: if the street be formed as shown, with the impossibility of its being continued further towards the south, I venture to prophesy that the southern portion will not be financially successful, but will remain another wide and empty street, like Gray's Inn Road. Conduit Street, Garrick Street, Vauxhall Bridge Road, and Portland Place; for what proportion of travellers from the north want to be landed at King's College with no means of going further south, and only the narrow Fleet Street or Strand to conduct them either to the east or to the west?

4. No future bridge could assist the street where proposed, for it would be against all ideas both of architectural beauty and economy to erect a second bridge and its accompanying approaches so close to Waterloo Bridge. In the first place, because this would completely hem in the river front of Somerset House; and secondly, because Waterloo Bridge itself and its approaches can be economically doubled in width.

5. For the same reason, the position is not the best for facilitating approach to the northern railway termini, for which purpose the street has been to a great extent advocated.

6. As to the advantage of the proposed site for opening out our public buildings, I venture to think it could not be worse. Our Law Courts, our Bankruptcy Buildings, and King's College Hospital are all three much frequented public buildings, at present placed in most crowded and inconvenient positions. One cannot conceive a more splendid opportunity than is here possible of opening out these three im-

* This map, which was exhibited to the Meeting, may be seen in the Library, and it will form an illustration to the book which Mr. Cawston is about to publish.

GRAY'S INN, SHOWING ITS NORTHERN HALF UTILISED FOR THE ENJOYMENT OF ITS POORER NEIGHBOURS, AS WELL AS BY LONDONERS IN GENERAL, ACCORDING TO MR. CAWSTON'S PROPOSALS.

The connection of Rosebery Avenue with Charing Cross would form a valuable and useful link in the London street system. It would open out Covent Garden Market, and the southern portion of such a street (that is, the portion from the junction of Holborn with Southampton Row to Charing Cross) would probably be more successful than the proposed position of Council Broadway, for it would lead direct to a busy centre. This view is looking due east along the Theobald's Road towards the Holborn Town Hall. The present unsightly wall bounding Gray's Inn on the north is removed, and part of that space thrown open to the public. The new street described above would join this place at the extreme right—just outside the limits of the picture.—A. C.

LINCOLN'S INN AND FIELDS OPENED OUT TO THE DAILY LIFE OF LONDONERS BY NEW STREETS BETWEEN HOLBORN AND THE STRAND, ACCORDING FO MR. CAWSTON'S PROPOSALS.

This view is supposed to be taken from the top of Stone Buildings. Imagine the present roadway to the east of the Fields stopped up, the present wall dividing the Inn from the Fields removed, and Bedford Row continued due south to the Law Courts. This new road, which would then form the eastern boundary of the enlarged public space, appears in the foreground. New arteries are indicated running along the southern and western sides of the Fields. These new roadways would make this central space one of the busiest and most popular spots in the metropolis, and the surrounding property as valuable as that around Trafalgar Square.—A. C.

portant buildings. Properly planned, a new street of less than a quarter of a mile in length would make all three buildings easy of approach from the whole of the north and north-west of London, and would bring out their architecture in bold relief. Instead of this, the plan proposed merely brings out the flank view of a church, intended by its architect only to be viewed, as at present, on its charming western front, while the main street will not open out any important public building at all.

Gentlemen, the subject I have attempted to put before you to-night is so great and so important to us all, that I fear it would be impossible for any one to handle it with the fulness, force, and clearness it deserves, in the short time at our disposal. My own presentment of it appears poor and weak compared with what I should like to make it, and with what it ought to be made.

I know of no subject which would appeal to us architects more forcibly than the architectural well-being of the city in which we live, and, probably in common with you all, I feel that the present condition of London is the subject of just reproach to our profession. It is not unreasonable that public opinion should expect of us some active steps, and I venture to urge upon you that it is now our duty, not to sit idly by and lament over the condition of our capital, but to take some vigorous and determined steps for its regeneration.

The measures which I propose to you to-night are simple. I ask you merely to give the official endorsement of this Institute to the opinion, held I think I may say by all who have studied the subject, that the only satisfactory way of making the streets of London adequate to our necessities, and of improving its health and beauty, is by formulating a settled scheme of improvement, and by gradually and steadily carrying that scheme into execution.

I have endeavoured to show that most of the attempts at street improvements made during the past have been but spasmodic and feeble, compared with what might have been done, and with what may still be done if such a plan be adopted. Fortunately, however, this has not been wholly so. Those cases where the improvement has been most successful are striking examples of the success of the method I advocate. We all know, almost every Londoner knows, that the gradual rebuilding of a part of London has been effected by the Duke of Westminster with unquestioned success; but it is not so generally known that these improvements have been carried out on a settled plan, and almost automatically, very much in the manner described in this Paper. Lord Cadogan has also improved his London property in the same way, and thus have these great landlords shown us an example worthy to be followed.

The immediate practical step I think this Institute should take is to represent to the London County Council, our Municipal Authority, the imperative necessity of preparing a plan and formulating such a scheme as will be worthy of the greatest city in the world.

If the Institute put these views adequately and forcibly forward, I think the Council will not be found wanting. In the brief space that has passed since it has been created the Council has given many indications of a statesmanlike interest in our welfare, and its work is beginning to kindle in our midst a faint spark of that municipal spirit which, in my belief, is absolutely essential to the carrying out of great municipal works.

It may be truly said of the Council "By their "works ye shall know them," and perhaps it could do nothing so calculated to create a municipal spirit and to earn for itself an enduring fame as to boldly attempt the regeneration of London. The Council's predecessors failed in gaining our affection and esteem mainly from their lack of enterprise in this very direction, for their conceptions had neither grandeur nor comprehensiveness.

Above all things, therefore, let not the magnitude of the work nor the fear of the cost deter us; for improvements never need be carried out at such a speed as to be an undue burden—indeed, I am fully persuaded the work need not prove a burden at all, but a blessing to the whole metropolis.

Let us then, inflamed by the success and fortified by the experience of other towns, set about the brilliant nineteenth-century task of reforming this, the capital not only of Great Britain but of the Great British Empire, regardless of everything except its present and future wants. Let us too, like our neighbours, determine that form in which its visible body will best accommodate the expanding life within. Then, in all the pleasures of hope for the coming century, we shall begin the great work, without alarm at its magnitude, its cost, or the lengthened period its fulfilment will occupy. For like our forefathers of old, who fearlessly started their unrivalled cathedrals, we shall feel convinced that our children and our children's children will be proud to continue on the lines we shall have laid down.

ARTHUR CAWSTON.

Discussion.

THE PRESIDENT.—Gentlemen, the subject of Mr. Cawston's Paper is one, we may all admit, of very great importance. (Hear, hear.) Possibly we may not agree with all the principles which he has enunciated—(Hear, hear)—but I think we shall all agree that he has taken a comprehensive view of a very comprehensive subject. (Hear, hear.) I have said that we may not all agree with the principles which he has enunciated; I should conceive, for instance, that members of the London County Council may not appreciate his strictures upon the streets which they propose laying out. We have the pleasure and honour of having here to-night several members of the London County Council, and I am sure it will be a matter of very great interest and satisfaction to us if they will be kind enough to express their views on this important subject. (Hear, hear.) We have with us, I believe, amongst others, Mr. Frederic Harrison, the Chairman of the Improvements Committee, and Dr. Longstaff, Chairman of the Building Act Committee of the County Council.

(Hear, hear.) If they will allow me to call upon them, we shall be very happy to hear anything they may have to say.

Mr. FREDERIC HARRISON (*Chairman of the Improvements Committee of the London County Council*).—I rise only to thank you, Sir, for the courtesy with which you have invited myself and some of my colleagues to be present at this important discussion; but, having thanked you for the courtesy with which you have allowed us to be present, I hope to be excused from attempting to enter upon any discussion. I came here to learn, to be instructed, to be corrected, and certainly not to debate a matter which I do not wish now to discuss before learned professional gentlemen. I will only say this before taking my seat—that I hope the Institute will not suppose that there is any foundation for the idea that the London improvements which have been attempted now for some years past by the County Council do not proceed upon a settled plan. (Hear, hear.) It is true that there is no settled scheme which is open to the public, and for a very excellent reason—that if there were, the result would probably be a very widespread land speculation. (Hear, hear, and laughter.) But I beg that this Institute will not imagine that any scheme of improvements has been undertaken without a settled plan somewhere. It may become my duty as Chairman of the Improvements Committee of the London Council to deal with this question of new streets in the Committees of Parliament; and therefore I must beg to be excused, for I have no mandate whatever from the Council to represent their views; I could not speak with authority; and you will understand that it is no discourtesy whatever to this very eminent and learned body if I decline to enter upon any premature statement of what I may have hereafter to say. I feel at the present moment, after listening to the strictures of the learned gentleman who has addressed you so lucidly and so fully, somewhat in the position of those official gentlemen who have lately been met by large and important deputations who have called upon them to state exactly what they are going to do and exactly what they are going to say in Parliament before Parliament has met. If, as I understand, it is the intention of this learned Institute to make an official representation to the London County Council as to the mode in which future improvements shall be carried out, I think I might suggest to the gentleman who has prepared this Paper that he should extend it a little further in one particular. I have listened with very great care and attention to this Paper, and I confess that I am at this moment not quite clear what an "automatic scheme" * means. (Hear, hear, and laughter.) If an automatic scheme is one that does not require an Act of Parliament, but is one that the County Council are to carry out *mero motu*, the mode in which certain legal obstacles are to be got rid of perhaps might be made a little more clear to us. Another point upon which I am in some doubt is this. It is proposed that the Council should gradually purchase properties in order ultimately to make a comprehensive reconstruction. I do not at present see out of what funds the purchase is to be made; that is a point upon which we should like to know a little more. So far as I know, the Council at this moment have not a single penny with which they can buy property anywhere. (Hear, hear.) To make an improvement, to remove an insanitary area, or to construct a new street, the Council have to go to Parliament to obtain leave to borrow the money, because they have not a single sixpence available for the purpose. How, in the absence of Acts of Parliament, the purchases are to be made is precisely the point upon which I think we shall require a little more instruction. Another point is that if this plan is to be made public, one sees at once that a great many persons will consider it well worth their while to anticipate any action of the Council. (Hear, hear, and laughter.) Is it intended that the Council should at once go for a comprehensive Act of Parliament giving them power to make all those blue streets that we see upon the plan, and to pull down and to change all the pink spots upon the plan? Because, if that is the case, of course such a scheme could not be carried out for a very long period; and in the meantime the difficulty that occurs to me, looking at it as a practical person having to deal with the financial side of these questions, is this: What is to become of the property for the thirty or forty years before the great scheme is carried out? These are all little details. (Laughter.) I merely suggest to the learned opener of this discussion that before he approaches the County Council I think he should turn over in his mind one or two of these little financial details, because these matters are really financial questions at bottom. We are many of us delighted with the gorgeous schemes which I see upon the boards before me; but, as I say, we have not a sixpence, and if we go for an Act of Parliament to make all those great squares, the difficulty of carrying such a Bill through Parliament does seem very considerable. While listening to the learned opener I have been making a few hasty calculations in my head; they are quite rough, and I do not put them forward as having any authority; they have not yet been submitted to the Controller's Department of the Council; but, so far as I can tot it up roughly, the scheme would, I think, require an outlay of about a hundred and fifty millions sterling; and I confess that I do not see my way to raising that amount of money. (Laughter.) Of course, if London were to suffer the catastrophe of another fire of London, as it did in 1666, and become *tabula rasa* again, I have no doubt that this Institute could furnish a Wren who would make a scheme of rebuilding which would be more convenient and more excellent than that of our great architect after the fire; but even that scheme, as we know, was never carried out, even in part. There are some things which I think

* See page 163 *ante*.

might facilitate the completion of the scheme which has been presented to us. Of course, if the Council had power to make Acts of Parliament without going down to Westminster—(laughter)—and had power to take land into its own hands just where it liked without the payment of compensation, or without incurring the costs which now stand in the way; if we were in the position of the Duke of Westminster, who is the ground landlord, and who has simply to let a lease run out and then is the absolute freeholder, and can do exactly what he likes; and if this and other learned bodies could persuade the people of London to allow us to raise a sum of about a hundred and fifty millions, I think that the scheme might be begun; but in the meantime I confess that the financial side of the question requires some little development before the County Council will be able seriously to consider it. (Cheers.) And in the meantime permit me to remind the members of this Royal Institute that the London Council does enjoy the entire assistance and advice of their architect, who is one of the most experienced members of this body.

Dr. LONGSTAFF (*Chairman of the Building Act Committee of the London County Council*). Mr. President and Gentlemen, I think it is very unfair upon the members of this Institute that our body should monopolise all your time, and I will try and be as brief as possible. We have to thank the writer of the Paper for the exceedingly comprehensive way in which he has dealt with this matter from the many points of view from which he has looked at it. At the same time, I agree with my colleague who has just sat down in thinking that Mr. Cawston has somewhat underrated the difficulties of the case. Nevertheless, there are some good points in his Paper—*e.g.* the general principle that we should look ahead and think what we are going to do, and carry out our work in connection with other works that have been done in the past or that are contemplated in the future. The Committee that I have to do with have lately spent a great deal of time, as I know the Council of this Institute have done, upon an ideal alteration of the Building Laws of the metropolis; and it has occurred to our Committee, though their proposals have not yet been made public, that something might be done towards a scheme that would be really automatic in a sense in which I scarcely think Mr. Cawston's scheme would. The great difficulty in London at the present time is that those provisions of the Metropolis Local Management Acts which regulate the setting back of frontages do not apply to old sites. (Hear, hear.) Only today a member of the Council came to me and asked whether my Committee could intervene in the case of a street in Whitechapel—I think it is called Flower and Dean Street—which is notorious for certain murders that took place there, and which is now on the point of being rebuilt. That street is in part only fourteen feet in width, and the buildings which are going to be erected will be more lofty than those which are at present existing. It appears to me and my Committee that the greatest evil that we have in London is the fact that there is at the present moment no control over such a proceeding as that. Sanitary authorities will, I think, tell you that it does not matter what width a street is, so long as it bears something like a reasonable ratio to the height of the houses on either side. (Hear, hear.) It is agreed that an angle of 45° or thereabouts, be it more or less, ought to be maintained between the top of the houses and the opposite side of the street. In another case which came before the Council, which is now pretty well known, and with which I personally had a good deal to do—the celebrated Bethnal Green case, to which Mr. Cawston alluded (making a slip in applying the death-rate of a small area of Bethnal Green to the whole parish)—here the Council were confronted with a considerable area in which the streets varied from sixteen up to twenty-four feet in width, with buildings abutting upon them mostly of two storeys in height. Had it been merely a question of the number of houses upon the site, the state of affairs was not very bad. The houses were not high; they were very old and very insanitary, and have actually been condemned in large numbers. But what would have been the result there? It would have been that when those houses were rebuilt, instead of having two very low storeys, as the old houses had, perhaps not exceeding sixteen or eighteen feet to the eaves, buildings of at least four storeys would have been erected, probably of ten or eleven feet to each storey, so that you would have had buildings from forty to forty-five feet in height abutting upon streets of sixteen or eighteen feet in width. That is the reason which led the Council to seek power from Parliament to obtain the whole of that site and lay it out anew. But it has seemed to my Committee that, with perhaps some clauses for compensation in certain cases, it might be possible to make those provisions of the Metropolis Local Management Acts which relate to the setting back of frontages apply to old sites as well as to new ones. If that power were given by Parliament, I think we should have something, not of the ideal kind of which Mr. Cawston spoke, but something more practical, something like an automatic means of improving London. This would not, of course, give us the great arterial improvements which must always, I think, be dealt with by special Acts and special methods, but it would lead to the improvement of many of the rookeries which exist in London, by opening out many streets which are now doomed to be closed up for many years to come. It would operate in the following way, I think. As my Committee have seen occur over and over again, a landlord, be he great or be he small, comes to us and makes a proposal to do something or other which the Act of Parliament does not allow him to do. But the Council have the power to give him this thing that he asks for, and then there arises a system of bargaining between the owner and the Council, or, I may practically say, my Committee; and the result of that bargaining is that many a good thing is got

for the citizens of London which the people in general know nothing about and never give us any credit for. (Hear, hear.) Mr. Cawston has spoken of landlords and building speculators in the suburbs of London being allowed to lay out roads like snakes, so long as they begin in one road and end in another. He seemed not to be aware that the whole of those roads come under the supervision of my Committee, and that we rarely sanction a road of such a kind as he alludes to until we have exhausted every effort to improve the formation of that road. In many cases we are not able entirely to get our way, or to make the landlords do what is ideally the best for the public; but I maintain that my Committee do over and over again succeed in getting very substantial improvements effected—*e.g.* we get branch roads put opposite to one another. Mr. Cawston does not seem to understand altogether the reason of the law which forbids a man to make *culs de sac*; he says that it is desirable that a landlord should be allowed to make a road that ends with his own boundary fence. True; but what happens? The landlord would come to you and say: "I am going up to "*this* point, and the next man will make a road "in continuation of this." But who has any power to compel him to do so? (Hear, hear.) There is no such power, and the reason of that provision being obtained by the Metropolitan Board of Works was because it was found that this laying-out of roads led to the crowding together of houses and to the very reverse of that which was desired—namely, the getting of good through roads. There is a matter that I wish very shortly to allude to, of much importance. Mr. Cawston's figures [see page 160 *ante*] are indeed very striking to any one looking at them at first; but at the same time, like all figures, they require to be read with extreme caution. (Hear, hear.) If I am going to speak in a somewhat pessimistic way, I wish it to be understood that I speak as a sanitary reformer and as taking great interest in sanitary matters; but at the same time there is at the present day an altogether undue optimism in the matter of sanitation. People point to figures like those and imagine that the improvement which is shown by them will continue in a similar ratio. What is the state of affairs? Mr. Cawston would say that there are a certain number of cities which have been energetic and have lowered their death-rate in a marked degree, while there are a number of other cities which have been apathetic and whose death-rate has remained stationary. On the face of it that appears to be so; but that is not the whole of it. The whole point is this: Given a very unhealthy place and a very high-death rate, it is comparatively easy, if you have only money enough, to lower that death-rate; but when you have removed the greatest evils and lowered your death-rate to something like 22 or 23, then all our experience shows it to be the fact that you are very near the limit to which you can go in that direction. Consequently, those cities which had the reputation twenty years ago of being the healthiest cities in Europe still remain the healthiest cities in Europe, but have not been able to improve themselves in more than a very slight degree; and in like manner Berlin, Liverpool, and Birmingham will not go on improving in the same ratio in the future as they have in the past; nor will it be a reproach to London, Paris, and Vienna that they have not improved still further. I beg you to bear in mind that the cities of the past were peopled by agricultural labourers and farmers and other people coming in from the country. In the old times the rural population of this country and of other countries greatly exceeded the town population. There was consequently always an abundant stream of population from the country into the towns, and this supplied the towns with population, in spite of their prodigious death-rates. The sanitary conditions of the towns in those days were so very bad that the children who were born in towns were killed off rapidly, and practically the population of mediæval London was probably almost entirely rural in its origin. But now we have removed the worst of the defects of our great cities, and made it possible for children to be reared in them, just as conceivably in the future it may be possible for European children to be reared in India. Children are reared in London now, but they are reared, even under modern conditions, among surroundings which are vastly inferior to those of their grandparents who were reared in the country. Consequently, we are all of us growing up amongst a population which is urban in its origin, and which has been urban for two or three generations, and it has yet to be proved what the result of this, going on for century after century, will be. Personally, I cannot help thinking, so far as I am able to form any judgment upon the matter, that the inevitable result will be a deterioration of the race—perhaps not very rapid or great, but degeneration I think there will be. No observant person can walk through the streets of London and see London children and compare them with country children without remarking a very decided difference. That marks the limit which must be set to any possible improvement of the death-rate; and meanwhile what is the correlative of this? The correlative of it is that, by reason of the improved means of communication, the railway and the telegraph, the greatest phenomenon of the nineteenth century is the prodigious growth of the cities. There has never in any past period of the world's history been a time—whether you take the old countries, such as France, Belgium, Germany, and Austria, or whether you take new countries such as the United States, or still newer countries, such as Australia—when so large a proportion of the population has been in cities. That is mainly the result of the improved communications and of machinery; and that will go on until, instead of the rural population being far larger than the town population, it will be much smaller, and the population will be almost entirely reared in towns. Of course that is an *a fortiori* reason for insisting upon every possible sanitary

improvement, because it becomes more and more important to have healthy surroundings. (Hear, hear.) Hence the main reason for the glorious enthusiasm which has characterised the modern movement for the retention and provision of open spaces. (Hear, hear.) I was sorry to see the readiness with which Mr. Cawston would give up many of the open spaces in London. (Hear, hear.) I did hope that, coming from the utilitarian atmosphere of Spring Gardens, I should have found in Conduit Street more sympathy with the æsthetic and a fuller appreciation of the beautiful. (Laughter.) I would do away with the evil courses of the lawyers, but their surroundings, I think, are the most agreeable parts of London, and I cannot altogether agree with Mr. Cawston in his proposals in that respect. (Hear, hear.) One of the greatest difficulties which Mr. Harrison alluded to, but which seems to have escaped Mr. Cawston—at all events, he did not mention it—is the way in which in London the land is cut up into very small pieces. This it is which leads to the immense cost of our improvements. When land is in very small pieces you have to buy it all up right and left, because it cuts so "to "waste." In the case of Earl Cadogan or the Duke of Westminster the owner has a large piece of land to deal with, and he can afford to give up a large portion of his streets or squares or what not, and yet there is a large portion left to be utilised; but when you come to deal with little pieces, what are you to do? What will be the size of the piece of ground that will be left after you have widened your street? You get a Charing Cross Road or a Shaftesbury Avenue; you have corners and places that are the worry of gentlemen of your profession, and a great eyesore as well. (Cheers.)

Mr. RALPH NEVILL, F.S.A. [*F.*].—Sir, perhaps it is time that some of the profession should join in the discussion. We are indebted to Mr. Cawston for bringing the subject forward, though I am bound to say that I agree with very little he said. The difficulties spoken of by the gentlemen from the London County Council are difficulties that must have struck all of us, as practical men, in carrying out such a comprehensive scheme. It is obvious that before anything of the sort can be done the County Council must acquire, by law, power to schedule all buildings they may wish to deal with in such a scheme; and if they do not take them down or buy them, they must prevent people dealing with them. That appears to be what Mr. Cawston intended. He said that nobody should do anything to any of the property coloured on his map except in accordance with the scheme to be hereafter carried out. That, if it could be done, would be a very desirable thing, and so far as it can be approached should be aimed at. (Hear, hear.) I think that there might be a means of scheduling buildings under agreement, or under a fine, if you like, to deal with them within a certain number of years; because it is obviously a monstrous thing that the moment an improvement is mooted anybody should within a year be able to pull down and build up new houses, which then cost the public large sums for compensation. What is wanted seems to be that the Council should have the power to schedule a property and say, "We want "to deal with this within the next three years, "and to take it at a price to be agreed upon "by arbitration, and if we do not do that, and in "the meantime prevent you building, we agree to "pay damages." That might be carried out to a small extent. That it should be carried out to a large extent, I do not suppose any of us would think. Mr. Cawston said at first that we must inevitably copy Paris, which will not suit the taste of most of us. (Hear, hear.) We may, many of us, remember a discussion that we had in this room some time ago, when Mr. Stevenson read a Paper, to which there was pretty general agreement, showing that though it might be difficult to deliberately lay out streets in crooked lines, yet such lines were almost a condition of picturesqueness and beauty, and not an impediment to traffic. We should certainly avail ourselves of such picturesqueness, and not drive our streets straight in the way that renders Paris so monotonous to most of us. Besides, as Mr. Cawston said, in Paris they pulled down all sorts of mediæval alleys. We have none left to pull down. Here and there you get an insanitary area where the buildings are of small consequence, but you can hardly go any distance without coming across costly buildings which you would have to pull down on any such scheme. Therefore the suggestion does not seem to me practical. With regard to what he says about pulling down the Foundling Hospital and buildings of that kind, some of them I should be glad to get rid of—especially St. Luke's, which is about the dullest building in London; and others may have to go in the process of time. But anybody who studies London, and looks about, will see that there are plenty of large areas covered with small trumpery buildings that will be available and will give sufficient room for a long time to come without touching these larger spaces, which I, for one, hope will always remain open. (Hear, hear.) Within a mile of the City, if you go down the City Road towards Islington, you may see acres and acres of two-storey houses that exist there, probably for some reason of leases, as in all parts of London; and there is also any amount of property in London within a mile of the centre that can be dealt with, without dealing with these open spaces. Mr. Harrison has already alluded to the financial difficulties; but even supposing Mr. Cawston had this scheme for scheduling the property, it could only be carried out by degrees; he himself says it would be twenty years before the street could be completed, and there would be great jubilation at the end of it; but he does not say who is going to pay the rents of the street, and to take the shops and business premises while there is no thoroughfare, while this work is going on; this practically, I think, reduces it *ad absurdum*—if I may say so. With regard to the plan, it is rather more difficult to say anything about it, because it is difficult to see it. Having studied this particular district and written a good deal on it in *The Builder*,

and elsewhere, I have some strong views upon it, and although I do not desire to advocate my own plan, I cannot help making a few criticisms upon that which Mr. Cawston has brought forward. With regard to the Council Broadway, my own plan was for the west side of Lincoln's Inn Fields, and I attacked the Council's previous plans; but the present plan seems so much better that, although I do not think it is the best, I did not think it worth while to fight against it, as nobody can expect to get his own way entirely. I think it might be improved in various ways, but it is infinitely better than any plan that has been brought forward before. The proposition of Mr. Cawston for dealing with the lawyers' property struck me with amazement; I think he must at some time have suffered severely from the lawyers, and must be determined to give them a rub, for it seems to be almost impossible for anybody to advocate going slap through Lincoln's Inn and all its beautiful grounds. Then I do not want to speak too strongly, but I must say from my own point, artistically, knowing these localities very well, I cannot view without, I may say, a feeling of indignation, those sketches that propose destroying that lovely garden in Lincoln's Inn Fields, and destroying that stately garden of Gray's Inn, in order to substitute fountains and a style of garden which, I am sure, will appeal to the taste of very few of us here; I am sure I shall carry the Meeting with me in censuring (Hear, hear) any interference with two of the most lovely spots in the whole of London. With regard to this scheme in particular, there are one or two things which govern the laying out of streets at this point. One is the Viaduct. There have been a great many propositions for a street between the Strand and Holborn, but I think that if anybody considers and studies the ground he must see that there is no room for any street between those two at that end. Nobody in his senses would dip down between the two, go down hill and up again, when he could go over the Viaduct quite easily; he would rather make a small *détour*. I have myself strongly advocated the opening of Long Acre to Holborn, and thus giving a new approach to the Viaduct; but to make any other thoroughfare, down the hill and under the railway, destroying all those enormous warehouses, seems to me rather a mad idea. In fact, I do not think the question of levels has been studied, because I observe on Mr. Cawston's map, from the south-west corner of St. Paul's a street running down to Blackfriars. That looks well, but if you know the locality you know that there is a tremendous hill; any thoroughfare going down such a hill as that would be quite outrageous. Mr. Cawston agrees with me as to the west side of Lincoln's Inn Fields, but he has turned one part of the traffic eastward, and turned the only people that have practically to be accommodated to any extent—that is, those going to Waterloo Bridge—into Bow Street. The objection to that is the dangerous hill of Bow Street, and that is the very thing that this new street is to avoid, namely, the trouble of the hill. Then there is a point that claims attention in the future, which I think is a simple one, but, unfortunately, it does not appeal to the eye like the symmetry of a map—that is, that no two thoroughfares should cross directly if you can avoid it. It looks beautiful on a map to see one great road crossing another, but it is the cause of all the worst blocks in London; and if you work it out on paper, by making the crossings in about a hundred yards of one another you get rid of half the obstruction; because of the eight ways that carriages can go, if the street be made a little wider at this point, half of the ways are taken by joining in the route without dislocating the traffic, and the other half require a crossing only of half the stream of carriages instead of the whole. Therefore, it is wrong, it seems to me, to deliberately make one great road cross another; they should work into each other at an extra wide place, and then you get rid of half the obstructions. The other point to be considered is that half the difficulty down the Strand which is complained of so much consists in people having to go through the Strand from Charing Cross to get over Waterloo Bridge. One thing that is much wanted in London is a bridge at Charing Cross, which would get rid of an enormous amount of the traffic. All the West End traffic would go down Northumberland Avenue over the bridge and never come into the Strand at all. But as a matter of fact the traffic in the daytime is not a great obstruction,—the great obstruction is caused by people going to and from work in the morning and evening; there are so many thousands who have to get into the place, and they all want to get in at the same time; wide streets will help this a bit, but at those periods of the day there will always be the difficulty. Whether by electric railways underground you can solve it is a point that remains to be seen.

Mr. JAMES NEALE, F.S.A. [*F.*].—Mr. President and Gentlemen, in the print of Mr. Cawston's Paper which I have in my hands, Mr. Cawston refers to bringing his Paper before our Art Standing Committee, of which I am a member. It was unanimously agreed at the committee that if Mr. Cawston's Paper was read it was to be made clear that Mr. Cawston was expressing his individual opinions, and in no way speaking on behalf of that Committee. (Hear, hear.) As we are favoured with the company of gentlemen of the London County Council, I hope they will understand that Mr. Cawston is not speaking on behalf of the Royal Institute of British Architects. After hearing the excellent speeches of Alderman Harrison and Dr. Longstaff, I am of opinion we have much to learn from them. Such a scheme as we see in Mr. Cawston's plan is a dream—the plan has only to be studied to be condemned. It is devoid of practicability. Architects must be practical—if they are not practical in formulating their plans and schemes they will not be listened to. I was sorry to hear Mr. Cawston talk of building on the open space of the Foundling Hospital. Such a suggestion I entirely disapprove of. Our object should be to

preserve and increase open spaces in thickly populated areas. I rejoiced last week to hear from one of the Aldermen of the London County Council of a scheme for removing the Foundling Institution further out of London, to pull down the old buildings, and retain the open space as a public garden. I feel it is a pity for a member of this Institute to submit to the members of the London County Council such a dream of imagination as is shown on Mr. Cawston's plan. What will they think of us?

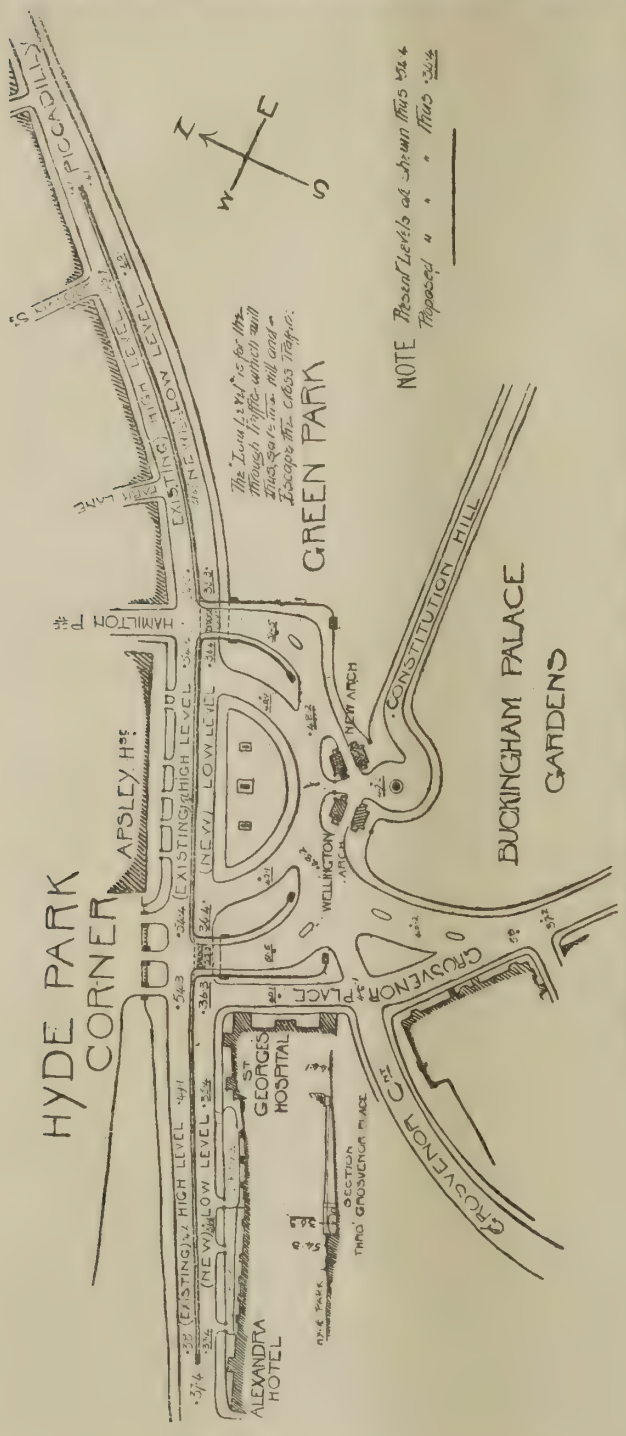
Mr. WATERHOUSE, R.A. [*F.*].—Mr. President and Gentlemen, I have pleasure in proposing a vote of thanks to Mr. Cawston for his Paper—the very important Paper—that he has read to us; and in doing so I should have liked to enforce what I take to be the leading idea of his Paper, that a most thoroughly comprehensive plan for the gradual improvement and growth of London should be matured under the County Council, and that all future alterations should be made and carried out as a part of a well-matured plan (Hear, hear); and I would also have expressed the opinion that it would aid the scheme and tend to create the amount of public enthusiasm wanted to successfully carry out any great work if such a plan were publicly exhibited and subjected to competent criticism. But I must confess that the speeches of the distinguished members of the County Council who have addressed us this evening have rather cut the ground from under my feet. I confess I am somewhat surprised to hear from Mr. Harrison that the London County Council are working under a settled, well-defined scheme (Hear, hear); and I still think that great advantage would accrue if such scheme giving the greatest facilities for traffic east and west as well as north and south throughout the whole of London were submitted to the criticism of experts. [Mr. FREDERIC HARRISON.—Have you asked the Duke of Westminster and Lord Cadogan to submit their plans?] No. Mr. Cawston's ideas are, as yet, in embryo. One further remark in defence of Mr. Cawston's suggestions, which are sufficiently drastic I admit. I do not understand him to propose the destruction or even the curtailment of the beautiful gardens of the Inns of Court; but that whereas Dr. Longstaff can now only walk through them, he shall at some point or other be permitted to drive through them.

Mr. H. H. BRIDGMAN [*F.*].—Sir, I should like to have the pleasure of seconding the vote of thanks to Mr. Cawston for his Paper; but because I take the pleasure of seconding the vote of thanks it must not be inferred that I am going to agree with what Mr. Cawston has said in reference to the matter. Mr. Cawston commences by deploring the absence of a municipality of London in the past. I suppose he had hoped that had there been a municipality (the kind of municipality that he would have liked), say for a quarter of a century, by this time we would have a perfect city for the Metropolis; but I should like to point to his figures showing the greatly reduced rate of mortality, and so favourable to London when compared with other great cities, as a proof of what has been done already in the Metropolis by the authorities. I venture to think that half the credit due to the late Metropolitan Board of Works was never assigned to it (Hear, hear); for I think a more vigorous governing authority has never existed in London, excepting, of course, the authority which now exists in the shape of the County Council. We may, however, have a vigorous authority, but at the same time we may not always have wisdom associated with that vigour. Now, I should like to say, with regard to the late Metropolitan Board of Works, that we can boast of some of the finest improvements in London that can be conceived. They carried out the Thames Embankment,—an ornament, and certainly a credit to them and to the Metropolis at large. (Hear, hear.) They carried out the Shaftesbury Avenue, and the Charing Cross Road in connection with it; and numerous other improvements in different parts of London. Another important street improvement was effected by them across South London from Waterloo Bridge to the Borough Road, which was a very great improvement indeed; and I venture to think that, but for the misfortune that so suddenly overtook them, and which was a very serious hindrance to their further existence, the various authorities around London might, by this time, have been constituted municipalities or District Councils before such a central authority as that which has been instituted in the form of the County Council. My own impression is that it would have been an advantage for those various local government bodies and the metropolis generally had these District Councils been constituted, and for them to have sent representatives selected by the ratepayers to a grand Central Council to control all these very important metropolitan matters, including that of new main streets which we are considering to-night. Now it has been said that before the County Council's next election comes to pass they will be in a state of bankruptcy. I hardly think that will be quite true; but I am perfectly convinced that if they were to entertain for a moment such a scheme as Mr. Cawston has advocated here—which I should think would involve the Metropolis in a liability quite equal to the present National Debt—they would by that means most certainly be involved in bankruptcy (Hear, hear). Mr. Cawston has started entirely on wrong lines. The scheme that he has propounded here so well is, I say, on his own showing, utterly impracticable. Our friend opposite has described it very strongly in that respect; but I think that if Mr. Cawston had simply drawn some parallel lines across the map horizontally, and then down the other way, without considering very minutely where he put them, they would be almost as practicable as many of the lines of streets presented to us (No, no). My contention is that when we improve the streets of London we must be guided by the streets that already exist in a great measure, and widen them for our main thoroughfares, and not cut new thoroughfares regardless of locality and cost, and through

blocks of buildings in a thoughtless manner. I know we must have some additional main thoroughfares—I am fully aware of that fact; but wisdom, common-sense, and practicability should guide our actions in this matter. I may say here, as showing that I have some little knowledge of this question, that some time ago, through the munificence of Mr. Westgarth, certain prizes were awarded for the purpose of producing the best schemes for improving the streets of central London, and I had the honour of winning one of the £100 prizes for that subject. Therefore I have in my mind now just what I myself consider should be the means of improving the London thoroughfares. So far as the Strand is concerned, I think the best way of relieving the traffic is to cut another street parallel with it through Henrietta Street, or rather to widen Henrietta Street and the other continuous streets east and west, giving an additional street practically from the Haymarket to the Law Courts. So far as a street coming from Holborn to the Law Courts is concerned, my impression is that a straight new street as proposed is on a wrong system. I consider it ought practically to have followed the line from Southampton Row, through Little Queen Street, continue down behind (westwards of) Lincoln's Inn Fields, and to sweep around into the open space in front of the Law Courts. I think this point of termination is of great importance, being a centre from which various streets should radiate, especially one to the Embankment, just the same as they do to and from Charing Cross and other centres. There is another point in London which, I think, should be made an important centre; that is at Aldgate, in the locality where the City are now constructing the new Tower Bridge. At Aldgate there will be in years to come a vast amount of traffic as the business over the new bridge develops. From that point there should radiate several new streets in connection with the bridge traffic; in fact, the Commissioners of Sewers will have under their consideration on Tuesday next the advisability of constructing a new street in a north-westerly direction from the Tower Bridge right through the City; and my impression is that they will utilise the Minories and probably widen London Wall, continuing it into Smithfield. But my strong feeling in regard to the subject before us is that instead of laying out wide streets here and there 100 feet in width simply for the sake of grand thoroughfares—where business certainly will not be such as that which people hope it to be: for wide streets, as a rule, are the worst for business and narrow streets the best—the present lines of thoroughfares should be utilised for that purpose as being not only more practicable but more advantageous to traders and others. And when it is said that we can buy a bit here and there as opportunity occurs after first laying down your line of street, I am sure the result would be a great fiasco. Ludgate Hill has been carried out during the past twenty or thirty years at a cost of something like £300,000. You have noticed that there a block has been set back, whilst other houses have been jutting out, to the great annoyance and prejudice of the owners and occupiers and traders of that street, and of course to the passers-by as well, because it interfered so much with business. Had that street been carried out as a whole and at once, I am sure that £70,000 or £80,000 would have been saved; but by doing it piecemeal—allowing the tenants, as they have done, to go from one part of the Hill to another, to be bought out two or three times over (laughter), which will always be the case when you construct a street piecemeal—the greater cost had to be incurred. If a new street is to be made, it should be done all the way through at once and as speedily as possible. I venture to think that the suggestion of doing it block by block or house by house would be a great mistake; it would be a bad thing for the traffic, and it would be equally bad from a business point of view; and to cut up London for the purpose of making such wide streets as proposed by Mr. Cawston would be the greatest possible mistake.

Mr. FRANCIS HOOPER [*A.*].—Sir, though in the presence of so many of my seniors, may I be permitted to support the vote of thanks to Mr. Cawston for his Paper? He has made reference to a report I had the honour of reading before you of the result of my study of Building Administration in Paris. I then had the opportunity of explaining that the improvements which have embellished Paris have been effected by two different methods of procedure: the one being by the purchase of property on an extensive scale for the formation of new streets and open spaces, and the other being by the less costly but slower process of gradual improvement of existing thoroughfares, by the regulation of building frontages. This latter method was initiated so far back as 1607 (Loi d'alignement), an Act requiring the preparation of plans for amending the lines of building frontage on public thoroughfares, applying equally to Paris and provincial towns. A department of the Préfecture de la Seine, with an architect as its chief, has charge of the "Plan de "Paris," and before any building is erected or rebuilt the authorised line of frontage must be ascertained and followed, and compensation is paid by the municipality for land given up for public use upon the basis explained in my report. No payment is therefore made for the building, as it has fulfilled its service and needs reconstruction. I had an opportunity of carefully examining this plan of Paris, upon which every change is recorded up to date, and I cannot but think it would be of immense advantage to London were a similar work to be undertaken and powers given to the proper authorities to adjust lines of frontage in a like manner. I note in passing that Mr. Cawston is compelled to exhibit his plans on Ordnance Surveys not corrected since 1876 (laughter). One influential visitor present, Mr. Frederic Harrison, fears that, if schemes for improvements were made public, there would be a great deal of land speculation (Hear, hear). It is my belief, however, that if plans in the past had been open to public examination and criticism, many abuses would have been avoided and better results obtained.

Maps can be obtained in Paris which show all new schemes approved by the Municipal Council, and represent the city as it is and as it is likely to become. Mr. Cawston states that within three years there have been official notices for the rebuilding or erection of 22,000 buildings in London. Now, giving a moderate frontage to each building, this represents something like 50 miles of building; and, supposing a similar activity during the 30 years since the establishment of the late Metropolitan Board of Works, and that powers had been obtained for adjusting frontages, we should by this time have upwards of 500 miles of building on well-considered lines, and a city in many directions better than that which now surrounds us.



Mr. Leonard Stokes's rough sketch of his proposal [see his speech].

Mr. Leonard Stokes [*F.*]. I have a little plan of my own here, Sir, but I am ashamed to speak of it after the comprehensive way in which Mr. Cawston has spoken of the whole subject. Before going into my proposal, however, I say that I am rather surprised that Mr. Cawston did not go a step or two further. He advocates a very large plan; but unless we become our own Dukes of Westminster and Lords Cadogan, and possess the whole place ourselves—(laughter)—we cannot possibly hope to carry out any comprehensive scheme. Therefore I say that Mr. Cawston has not gone far enough. He has been criticised pretty freely for going too far; but for my part, I say let us have the *whole* of London to ourselves, and not only the small part Mr. Cawston asks for. Of course I shall be put down as a fanatic; but I think if you work it out you may find it is about the only way of managing the affair properly. To proceed with my little scheme, this [*describing plan*] is Hyde Park Corner, and I first began to think about it at the time when the question of finding work for the unemployed was occupying public attention—that was what first set me thinking. Then it struck me—not for the first time, however—that at *this part* of Piccadilly there was a very awkward hill, there being a rise of 13 feet from the bottom of Down Street to Apsley House. Now, as the street is very wide here, it struck me that if we were to keep half of Piccadilly—the North side— at its present level (I call this the "High Level"), then from just a little east of the bottom of Down Street start—going west—to go down with the southern half at the rate of about 1 in 160, by the

time you get to the bottom of Hamilton Place you will be about 19 feet lower than the present (or "High Level") level in Piccadilly. Continuing this "Low Level" west, we pass under a bridge, which bridge will take the north and south traffic from Hamilton Place down toward Victoria or wherever it wants to go to. Then further west still, the same thing occurs at Hyde Park Corner—*i.e.*, the traffic from the Park crosses the bridge over the head of the traffic going east and west—along the "Low Level"—and thus obviates the terrible block which often occurs at this point. Grosvenor Place, instead of going *up*, as at present, towards the Park at the rate of about 1 in 34, would go *down*, at about the same rate, till you join the "Low Level." Mind you, this "Low Level" is for the *through traffic* going east and west; and I may tell you in passing, from observations I have made, I reckon that about 30,000 vehicles a day go *through*; this comes to about 11,000,000 a year all going up 13 feet of unnecessary hill just to come down again. I reckon that it takes a horse-power to raise an average vehicle over that hill, so that we should save 11,000,000 horse-power per annum (laughter) by cutting off the top of the hill as I propose with my "Low Level" road. If the County Council want to save our horseflesh and money, here is a grand opportunity for them (Hear, hear). Besides that, Hyde Park Corner as at present is a very awkward-looking place. I do not say I have made it look better, but I have tried to do so. I get two bridges built on similar lines, as you will see by the plan, and have tried generally to give a dignified effect to the whole. To repeat, carriages coming up Grosvenor Place can get right up over the bridge into the Park without any delay. In the season they get stuck there, and cannot get past sometimes for five or ten minutes together (hear, hear). The through traffic will go through on the "Low Level" without a moment's interruption. You would thus save your time; and a great many people may have noticed that climbing up that hill is no easy matter and takes considerable time. At first sight it may look a ridiculous scheme, but I venture to think that you will find it has advantages. Constitution Hill is in a direct line with Westminster Bridge. If you were to continue Constitution Hill across St. James's Park, the carriage traffic could drive along from the Park to the Houses of Parliament and Waterloo Station.

The PRESIDENT.—To any one who lives in the neighbourhood of Piccadilly, as I do, the constant block at Hyde Park Corner and Hamilton Place is an intolerable nuisance, in my opinion. I do not say that Mr. Stokes's plan is a good or a bad one—I have not seen it till this moment; the only real remedy is to have roads on two levels, as he suggests. In inviting discussion, Gentlemen, upon the subject of the Paper, I remarked that I thought Mr. Cawston deserved credit for having viewed it in a comprehensive spirit. It has been extremely gratifying to me to find that this comprehensive spirit has already inspired the proposals of the London County Council, and that in spite of the financial difficulties which Mr. Frederic Harrison depicted in glowing language, he appears to have a comprehensive scheme up his own sleeve (laughter). This is eminently satisfactory, and we shall now look upon any proposal emanating from the County Council for the improvement of the London streets and thoroughfares with all the more confidence, inasmuch as we know on such competent authority that it will not be piecemeal legislation, but part of a large and well-considered scheme. I think it is only due to Mr. Frederic Harrison and to Dr. Longstaff to thank them for the very able and interesting speeches they have been kind enough to deliver (Hear, hear). I would have called individually upon other members of the London Council to speak, and we should have been delighted to hear them; but we all know that among their multifarious duties they have to do a great deal of talking, and probably they are more than tired of oratory. All the more should we thank those gentlemen who have been courteous enough to speak at such length. In regard to the Paper, it is too late for me to enter into details, but there is just one point to which I must be permitted to refer. The first principle Mr. Cawston has laid down is, "To open up portions of our Town Parks "and some other open spaces." Mr. Cawston has not explained in detail what he means by that; but, if it indicates any interference with the Parks of London by carrying thoroughfares across them, I for one do not hesitate to say that I should stoutly oppose any such scheme. We cannot too much treasure the Parks of London for breathing spaces, and nothing would ever convince me that to tamper with them is either equitable or just. The only other remark that I will make is with regard to the very thoughtful observations of Dr. Longstaff, as to the injurious effects resulting from population being attracted to great cities like London from rural districts. He attributes this to a great extent to the facilities in the way of railway communications which have been provided in recent years. If this be so, I would suggest that the cause of the evil should be utilised in order to remedy it. I have always thought the proper cure for the overcrowding of London is to encourage the working-classes to live in the suburbs (Hear, hear); and by providing proper railway facilities you would go a long way towards remedying that evil. A vote of thanks has been proposed by Mr. Waterhouse, and seconded by Mr. Bridgman, to Mr. Cawston for his Paper; and, though we may not all agree with all its details, we can all concur in thanking him for the labour he has bestowed on the consideration of an important subject (Hear, hear).

Mr. ARTHUR CAWSTON [*A.*].—Mr. President and Gentlemen, I beg to acknowledge most cordially your kind vote of thanks. It is quite impossible for me to deal with all the questions that have been raised, especially as one commences with the fact that on one side of the room we hear that a comprehensive plan already exists, and on the other side of the room, in two or three places, we hear that it is impossible to make one.

Transformations of cities have been carried out elsewhere by means of a comprehensive plan, and I utterly refuse to believe that Englishmen cannot do the same. Dr. Longstaff criticised my remarks made with reference to roads sometimes being made as tortuous as snakes. Unfortunately, a property that I am interested in is having roads made over it as tortuous as snakes. The speculators say they defy the County Council, because they have no power to prevent the roads being made in this way. I quite believe that the County Council are doing as much as they possibly can for us; when I have spoken on this subject I hope I have always spoken in this way. But the Council want more power, and until they have more power such misfortunes as are now being daily created under our very eyes cannot be prevented. As to the cost of transforming London, this is hardly a question for us to go into to-night, or even for this Institute at all. My Paper was confined to the cheapest and best way of carrying out improvements, and not to the rate at which the improvements are to be carried out; in other words, to the amount that ought to be spent every year. There can be no two opinions that the working to a settled plan is the cheaper of the two. The present system I regard as extravagant in every way; extravagant of money, of time, and of opportunity. As I have already stated, I am about to publish a book on the whole subject; and I hope to give there a whole chapter to the question of cost. The objection that a settled plan will enable speculators to buy up land has been dealt with on my Paper. Of course any system under which speculators can forestall improvements is undoubtedly bad, and we all know the present system is very bad for that very reason. Doubtless, a comprehensive scheme such as I propose, or indeed any other great municipal work, can only be done if we have real municipal government. Many of us are looking forward to the time when the Corporation and the Council will be all one. (Hear, hear.) We shall then, no doubt, have self-government worthy of the name; until then no scheme such as I advocate can be carried out. It would be worse than absurd for this great municipality to have to go to Parliament every time they wanted to take a step further. When, then, we have this real municipal government, and power to improve our future city as we like, then we shall be able to carry out our improvements without, I hope, letting speculators and their friends know in advance which part of the scheme we are about to put forward. In the meantime, I contend that we should be preparing or criticising a comprehensive plan; or, if such a plan exists, we should be perfecting it. From the little I know of the subject, I imagine that this will be the work of years. Possibly even it may take longer to perfect such a plan than to obtain complete municipal control. Dr. Longstaff misunderstood my remarks about building over the many open spaces which are now devoted to lunatic asylums, water-filtering beds, gasworks, &c., thus creating a further density per acre in the central parts of London. Nothing is further from my wishes than to increase the density of population. For every acre of open space that is built over I would throw two acres of present buildings into roads, until London at length becomes interspersed with great arteries in all directions. It will then equal Paris in this one particular, that one-third of the whole area of each city will be devoted to its roads. I admit that I have laid stress on the dilatoriness of our English law, but I could not possibly have said the same of our English lawyers. Immediately these gentlemen fully realise the enormous amount of their ground values, and the heavy tax that vacant locked and barred gardens adjoining our slums in central London will soon have to pay, I feel sure that for once no one will complain of their inertness. Without doubt they will nobly complete the sales of the Inns. Mr. Nevill stated that streets should not cross one another. I venture to think that Mr. Nevill has not handled the ribbons very often. [Mr. NEVILL: Oh, I beg your pardon.] I quite agree with Mr. Bridgman that the Metropolitan Board of Works did very great work in their time; they did an enormous amount of good work, no doubt, but they did fail to gain our affection and esteem, as I have said in my Paper. This was mainly due to their want of enterprise in bringing the London streets up to the level which has been reached elsewhere.

MINUTES. VII.

At the Seventh General Meeting (Ordinary) of the Session held on Monday, the 30th ult., at 8 p.m., Mr. J. Macvicar Anderson, *President*, in the Chair, with 36 Fellows (including 7 members of the Council), 40 Associates (including 3 members of the Council), 1 Hon. Associate, and 25 visitors, the Minutes of the Sixth General Meeting (Ordinary) held on the 16th inst. [see p. 154 *ante*] were taken as read and signed as correct.

The following Associate attending for the first time since his election was formally admitted and signed the Register, namely:—Mr. Percy Leslie Waterhouse, M.A. Cantab. (Tasmania).

A Paper by Mr. Arthur Cawston [*A.*] on "The "Advantages of adopting a general scheme in "making Improvements to the London Streets," was read by the author. In the discussion which ensued Mr. Frederic Harrison (Chairman of the London County Council Improvements Committee), Dr. Longstaff (Chairman of the London County Council Building Act Committee), Mr. Ralph Nevill, F.S.A. [*F.*], Mr. James Neale, F.S.A. [*F.*], Mr. Alfred Waterhouse, R.A. [*F.*], Mr. H. H. Bridgman [*F.*], Mr. F. Hooper [*A.*], Mr. Leonard Stokes [*F.*], and the President took part, whereupon it was

> Resolved, that the thanks of the Institute be recorded to Mr. Arthur Cawston for his Paper.

Mr. Cawston having replied and acknowledged the compliment, the Meeting separated at 10.15 p.m.

No. 9, Conduit Street, Hanover Square, London, W.

THE NATURE OF THE ASSOCIATES' EXAMINATION. Young architects and students of architecture are constantly applying to the officers and members of the Institute for information as to the Examination qualifying for Associateship. The official answer to their inquiries is to be found on pages 177 to 186 of our KALENDAR, together with examples of Papers recently set, and a general statement of the scope and intentions of the Examination so complete as to need no supplement. It is therefore sufficient for any architect who is consulted by his pupils or their parents as to the nature of the Examination to refer them to those pages, if he be not himself sufficiently acquainted with the details of the matter; and I venture to think that there are very few Examining bodies, academical or professional, who issue for the benefit of candidates so explicit and so considerate a statement of the Examinations they conduct.

It would then be superfluous to recapitulate for the benefit of intending candidates the information to which they have such ready access; but it happens that of late the Examination of the Royal Institute of British Architects* has been brought before the public in articles and reviews of a non-professional character, and that, by a doubtless unintentional misapprehension of facts (pardonable in a lay writer), it has more than once been represented in a false light—a part has sometimes been represented as the whole; and, now and again, the mistake has been made of supposing that the Institute regards its successful candidates as fully equipped architects certificated by the very fact of Examination. The latter error needs only to be noticed for its absurdity to be exposed; but the false impression produced in a public journal by a one-sided or an incomplete statement of the scope of the Examination is not so easily overthrown.

Speaking broadly, one may say that the object of the Examination is to encourage a sound and solid system of architectural education by excluding from the ranks of the Associateship men who have not acquired the standard of training which can be obtained by an intelligent and industrious man, through the means of work in a good or fair office, supplemented by private study on those historical facts of our art, the knowledge of which is an essential to scholarly work. The man who is handicapped by studying in an inferior office will, of course, be driven to arrive by private study at certain information relating alike to materials and styles which, under an able principal, would be imbibed and digested as part of the daily routine; and I described the candidate as "intelligent and industrious" under the conviction that the man who is neither would be more usefully introduced to a different walk of life than architecture.†

A student's soundest and most valuable knowledge of materials and their adaptation

* I allude in this article to the still existent single Examination, which will be superseded, in 1894, by the "Final" of the already instituted Progressive Examinations.—P. W.

† It is beyond the scope of this article to draw attention to the many excellent means, specially those of the Architectural Association [see p. 11 *ante* for an article on this subject], by the aid of which a man may supplement his office studies in various directions.—P. W.

will naturally be that which he puts together in contact with actual work; and further, his capacities for design in a given style will probably, under favourable circumstances, be derived as much from office work under a clever master as from the study of buildings or books. But it is recognised by the framers and conductors of the Examination that it can only be in very exceptional cases that a young man will learn in the office, or in the superintendence of works, all that is required to fit him for the creation of architectural results on his own account. It is therefore assumed of a candidate that, besides having made the best use he can of the advantages to be directly derived from his pupilage, he will have spent considerable time in studying and drawing (not sketching) ancient and other buildings; that if he has not had the advantages of foreign travel (or even if he has), he will have read and consulted certain of the standard architectural books which are readily accessible; and, finally, that he will have occupied his leisure in attempting some simple designs which will have enabled him to feel his own way more distinctly than can be done on the office drawing-board and under the principal's direction. Viewing it in this light, it is a simple matter to trace the system and the *raison d'être* of the Syllabus given in our KALENDAR. It is not from any disregard of the unity of our art that the subjects of the Examination are set forth under nine headings. The "History of Architecture" is, of course, inseparably connected with "Mouldings and Features," "Construction," and "Strength of "Materials"; at the same time it will be readily understood by those who can admit the claims of system, even in the realm of art, that there is a convenience in recognising in each Paper a special aspect of our craft.

Sanitary science, strength of materials, construction, and specification are the subjects in the treatment of which the student chiefly relies on the actual experience he has gained during his pupilage, or, maybe, in his early attempts at practice; but even in these matters there is much that even the most practical architect will not disdain to learn from the excellent handbooks which are nowadays in circulation and to which attention is drawn in the Syllabus. "Professional practice" can only be learned from experience, or from the wise hints of some elder friend. The title should not alarm the candidate; he is not expected to come to the Examination-room either a master of professional etiquette or an expert in light and air. The Paper on this subject is not highly marked, and indeed the object of it is merely to discover whether the student has obtained a rudimentary insight into those duties which are inseparable from our work, but which do not fall within the range of draughtsmanship, construction, or superintendence.

And now a few words as to the subjects entitled "History of Architecture" and "Features and Mouldings." It is fully realised, first, that an intricate study of all periods of architecture is more than can be expected of a young man, perhaps of any ordinary man; and, secondly, that for purposes of actual work most architects, even the best, generally lean towards and cultivate a particular style; and therefore the candidate is directed to select, for particular examination, *one* of the prominent styles of the world. At the same time it is felt that there is in every architect a need for at least general knowledge of the architecture of all times and countries, and accordingly candidates are given distinctly to understand that they "will be required to show a "reasonable acquaintance with styles and periods other than those selected by them." There is good cause for such a stipulation, for, to take an instance, suppose a youth to have been trained in an office where the work runs in a particular groove—say Gothic chapels. His natural proclivities, in spite of facilities obtained under his special training, may make him capable of efforts in other directions; but, for want of an introduction to the mysteries and beauties of the Classic and Renaissance methods, he may be stunting his capacities for designing in after life a successful Town-Hall or Post-Office. Many and many a man who has worked (and worked cleverly) in a groove has, for want of general study of style, found himself driven to design beneath his own

capacity by starting on a building in which he was doomed either to use an inappropriate style because he understood it, or to work in a manner in which, because it was an unfamiliar language, he made the mistakes of a barbarian.

One of the Papers, as I have already mentioned, is on Sanitary Science, a department of knowledge which is sometimes considered beneath the dignity of an architect! It is enough to say that nowadays most house-owners are keenly alive to its importance, and rightly expect that their architect,—whom, by the way, they generally hold responsible,—should be something more than a Gallio in drainage. The Institute agrees with them in this expectation.

In conclusion I would say something as to the "Plans, Sections, and Elevation," which have to be executed in the Examination-room, and the Probationary Work, which is required as a preliminary guarantee of suitability in the candidate. The former are considered the severest and the most important of the tests imposed in the Examination; an entire day is set apart for the subject, which, as its title implies, consists of the working out in elevation, section, and plan of some simple building problem the conditions of which have been hitherto only laid before the candidate on his entering the room.* The creation of such an imaginary building, the elaboration of its plans and sections, the arrangement of its parts, and the composition of its external aspects together represent a mental exercise which in architectural phraseology is generally symbolised by the one word "Design." But it has been stated by more than one authority that a man cannot be examined in his powers as a *designer*, and it is therefore, perhaps, as well that the more lengthy title should be retained, and that, rather than submit any student to a process which he may have been taught to regard as a logical impossibility, we should examine him, not in the principles of "Design," but in those of the composition of a building in "plans, "sections, and elevation."

It should be remarked that, though drawing *per se* is not (as some assailants of the Institute have supposed or pretended) regarded as *the* criterion on which a candidate stands or falls, he is still expected to express his answers to the questions set as much by sketches as by writing, and that, in evidence of his abilities as an average draughtsman, he is required to submit as Probationary Work certain drawings of a simple building of his own design, with a free-hand study and a perspective view.

The objectors to our system sometimes found their conclusions on the triumphant truism that you cannot make an artist by examination. We may, I think, safely leave them to their own logic. But when we hear our friends talking wildly about genius and its freedom, it is worth while to remind them and ourselves that the Hill of architecture, though it *is* a Parnassus, is one up which we toil as much with feet as with wings; and if any one will help us towards discovering whether a young man has a firm foothold in the ascent, and whether his face is set in the right direction, by pointing out a better method than ours, I am sure that it will be impartially considered.

PAUL WATERHOUSE.

*** The next Examination qualifying for candidature as Associate will be held during the week commencing 10th April 1893, and applications for admission to it, with the required Probationary work, should be sent in not later than Saturday the 18th March 1893. The Preliminary Examination qualifying for registration as *Probationer* and the Intermediate Examination qualifying for registration as *Student* take place on the 21st and 22nd March 1893. Applications for admission to either should be sent in not later than Tuesday the 21st February 1893.

* By a recent decision, the subject selected for the Design, *i.e.* the plans, sections, and elevation referred to by Mr. Paul Waterhouse, will be communicated to each applicant on his admission to the Examination—a rule which is to come into operation this April.

THE LION OF ST. MARK.

St. Mark yet sees his lion where he stood
Stand . . . . . .
Over the proud Place where an emperor sued.
CHILDE HAROLD, iv. 11.

One of the most familiar features in Venice to the tourist is the figure of the lion of St. Mark on the column in the Piazetta. The Cavaliere Giacomo Boni [*Hon. Corr. Member*], under whose superintendence the lion was recently taken down and restored, has reprinted in pamphlet form, from *L'Archivio Storico dell' Arte*,* an interesting account of the operation, with some erudite speculations as to the date, origin, and signification of the figure, which he considers was a *totem*.† The appreciation of the lion as a work of art has undergone considerable development. In the earlier editions of *Murray's Handbook of Northern Italy* it is described as being "without any pecu-"liar merit as a work of art"; but Mr. Ruskin, in a well-known passage in the *Stones of Venice*, speaks of it as "that noble winged lion, one of the "grandest things produced by mediæval art, "which all men admire and none can draw. I "have never yet seen a faithful representation of "his firm, fierce, and fiery strength. I believe "that both he and the capital which bears him are "late thirteenth-century work." Cavaliere Boni, however, considers the lion to be of the twelfth century, and gives elaborate reasons for this supposition, the most conclusive of which are based upon a careful study of the lion itself.

The lion was removed by the Emperor Napoleon I., and was carried to Paris, where it was set up on the *Esplanade des Invalides* as a trophy of the triumphs of the French army. On the restoration of the Bourbons the lion was returned to Venice, but in removing it, it was let fall and shattered to fragments. It is probable that some of the fragments were not recovered—at any rate, considerable portions of the figure are modern, and are the work of the sculptor Bartolommeo Ferrari, who restored the lion when it came back in pieces from Paris in 1815. The lion is 14 feet long from the front paws to the tip of the tail, and 7 feet 6 inches high from the level of the abacus of the column to the top of the wings; the right front paw and half of the left front paw, together with half of the right hind paw, are not original: a tuft of mane on the head has been restored, and so have the wings and the greater portion of the tail. The added portions are academic and mechanical, and are quite out of harmony with the spirit of the original work, which is vigorous and spirited to a remarkable degree. The additions are of latten (ottone), *i.e.* brass and zinc. The book between the front paws, which seems to have been removed during the recent restoration, was of lead. The original book, it appears from a note to *Childe Harold*, was lost during the journey to Paris. It is said that from this book the words of the Gospel were erased by the French, and the words "*Droits de l'homme et du Citoyen*" substituted, upon which a gondolier remarked that "St. Mark, "like everybody else, had been obliged to turn "over a new leaf."

The lion was gilt (*fulgente d'oro*, according to Contarini), and the Cavaliere Boni found traces of gilding on the upper jaw. The eyeballs are of a vitreous material, white and pellucid, with triangular facets, but these do not appear to be the original eyes, which Cavaliere Boni supposes were of cornelian, chrysoprase, or other opalesque quartz. Mr. Ruskin, in *St. Mark's Rest*, suggests that the original wings of the lion extended further than the present wings, and that the edges of the wings were serrated, a supposition which is confirmed by a picture in the hall of the Great Council in the Ducal Palace, by Bassano, in which the column in the Piazetta is shown with considerable detail.

The lion is constructed of small pieces of bronze about one-third of an inch thick, secured by screws to an iron framework. The framework and screws having oxidised, it became necessary to remove the lion from the column and to replace the iron framework by a frame of bronze. This operation was carried out successfully under the superintendence of Cavaliere Boni, and the lion was replaced on the column in April of last year, the capital having been in the meanwhile repaired and the shaft of the column restored to the perpendicular, the last work having been accomplished under the direction of Cavaliere L. Vendrasco, the clerk of the works at the Ducal Palace, whose exertions are generously acknowledged by the architect.

The Cavaliere Boni refers with pardonable satisfaction to the successful reinstatement, under his supervision, of the fragments of the bronze bull in front of the Cathedral at Orvieto, a magnificent thirteenth-century work which fell down in the year 1835 and was broken in pieces. It was proposed by the Government in 1885 to melt the bronze and cast a new bull; but, thanks to the energy and determination of Cavaliere Boni, the scattered fragments were put together and the bull restored to its position in front of the Cathedral fifty years after its fall. The judicious manner in which the repair of these two important works has been carried out cannot but inspire respect for the methods of the Italian Government and its advisers in dealing with matters of this kind.

JOHN HEBB.

* *Il Leone di San Marco* (*bronzo veneziano del milleduecento*); estratto dell' *Archivio Storico dell' Arte*, An. v, fasc. v.

† A totem is a class of material objects which a savage regards with superstitious respect, believing that there exists between him and every member of the class an intimate and special relation. The name is derived from an Ojibway (Chippeway) word *totem*, the correct spelling of which is somewhat uncertain. . . . With regard to ancient nations, totemism may be regarded as certain for the Egyptians and highly probable for the Semites, Greeks, and Latins. If proved for one Aryan people it might be regarded as proved for all; since totemism could scarcely have been developed by any one Aryan branch after the dispersion, and there is no evidence or probability that it was ever borrowed.—Frazer, *Totemism*, 1888. —J. H.

THE LION OF ST. MARK, RESTORED IN 1815.

The illustration is reproduced from one in Cavaliere Boni's pamphlet, and to the same scale, which is one of mètres.
The hatched portion shows the original work.

LEGAL & PARLIAMENTARY NOTES.

What is a "Building" under the Act?

A case of some importance to timber merchants and others has been, so far, settled by Mr. Newton, the magistrate sitting at Marlborough Street Police Court. On 29th December, Jacob Gluckstein, of Church Street, Shoreditch, was summoned by Mr. Fredk. Wallen, the district surveyor of St. Pancras, for having erected a structure, deemed a building, without enclosing it with walls. The case, which was adjourned from 29th December, is sufficiently stated in the following report which appeared in *The Times* of the 27th ult., and it will be observed that notice of appeal was given.

Mr. Bodkin, barrister, in opening the case for the prosecution, which was instituted by the London County Council, said that the structure in question was situated at the corner of Tottenham Street and Cleveland Street, and was completely surrounded by buildings of various kinds. It was a timber stage, consisting of three floors, and was used for the storage of timber of various kinds sawn up into different lengths and thicknesses, access being obtained to the upper floors by means of a permanent staircase fixed inside. On each side of it was a party-wall of brick, and as far as these walls were concerned, the structure was enclosed. It was to the other two sides—the back and front—that he wished to call attention. The structure was supported by fifteen upright pillars made of wood, which rested upon stone, and were arranged in rows of five. The floors were laid upon joists, and were, in fact, common warehouse floors, while over the structure there was a flat zinc-covered roof. The supporting pillars were, moreover, mortised into the stone bases, and the stone bases rested upon brickwork, and the brickwork upon solid concrete foundations. The whole was thus thoroughly substantial and strong, and the object of the prosecution was to compel the owner to erect walls of brick or other incombustible material, with, of course, necessary openings in the back and front, for the safety of surrounding buildings in the event of fire. In defence Mr. Glen, barrister, submitted that the structure was not a building in respect of which the Building Act required the erection of enclosing walls. The question, he added, was one of great importance, and if decided against the defendant would have the effect of driving the timber trade away from London. Mr. Newton said that he could have no doubt that the structure was a building. He made an order in the terms of the district surveyor's notice, and granted the prosecution three guineas costs. Mr. Glen gave notice of appeal.

Rights of Light.

LANE *v.* KELLY AND ANOTHER.

This case, which was tried before Mr. Justice Wright (without a jury), should be borne in mind by architects, whether acting for servient or dominant owners, and is principally interesting from the views laid down by the Judge on the question of diminished light.

The case will be well understood from the following report, which appeared in *The Times* of 15th November last:—

This was an action by the owner in fee simple of houses and workshops known as Nos. 3, 4, and 5, Bath Court, Clerkenwell, subject to leases granted for twenty-one years from July 30, 1885. The defendants in May last erected certain walls and houses 69 ft. high opposite the plaintiff's premises at distances varying from 22 ft. to 34 ft., the result being to obstruct the windows in plaintiff's premises and render them dark, unwholesome, and of less value, so that plaintiff's reversionary estate has been injured. The defendants denied that any injury had been caused to plaintiff's premises, and pleaded that all that was done by them was done with the full knowledge of plaintiff.

Mr. Clode was for the plaintiff; Mr. Butcher for the defendants.

Evidence was called on plaintiff's behalf to show that since the defendants' buildings had been erected it had been impossible to work at No. 3 without continual gaslight, so much so that on one occasion when the gas had not been lighted a workman had injured his hand. Expert evidence was also given, which assessed the damage to plaintiff's property at £200.

For the defence evidence was called to show that the original buildings opposite plaintiff's premises were only 10 ft. away, and that in fact plaintiff's light and air were better now than formerly.

Mr. Justice Wright, after hearing the arguments of counsel, in giving judgment, said that as to No. 3—the warehouse and workshop—he had come to the conclusion that the top floor had not been obstructed by the defendants, and that the lower floor had not so good a light as formerly, the defendants' buildings being three times as high and twice as far off as before. Looking, however, at the cases of "Kino *v.* "Rudkin" (L.R. 6 Ch. D. 160) and "Kelk *v.* Pear-"son" (L.R. 6 Ch. App. 813), it seemed to him that the question for him to decide was not whether there had been a diminution of light, but whether there was enough left for the reasonable use of the houses. He had come to the conclusion that as to No. 3 enough light was left, and plaintiff must fail as regards that part of his case. As to Nos. 4 and 5 – the dwelling-houses—he thought plaintiff was entitled to recover damages, and adopted the view taken by plaintiff's expert, who put it at £2. 10*s.* per annum. His judgment would therefore be for plaintiff for £30 damages and costs.

Note should be taken of Mr. Justice Wright's judgment in this case. The question for him to decide was not, he said, whether there had been a diminution of light, but "whether there was "enough left for the reasonable use of the houses."

WM. WOODWARD.

L.C.C. Works, &c.—There is no doubt that the success or non-success of the new departure of the London County Council in proposing to be, as far as possible, "its own builder," will be largely dependent upon the holder of the important post of "Manager "of Works and Stores," which was filled up by the appointment of Mr. Thomas Holloway, . . . known to many of our readers as having built the Hôtel Métropole at Brighton, not as a contractor, but as master of works, under conditions somewhat analogous to those now proposed to be adopted by the London County Council.—*The Builder*, 28th ult.

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SESSIONAL NOTES.

The Royal Gold Medal.

The Council nomination of Mr. Richard M. Hunt as a fit recipient for the Royal Gold Medal will—if accepted by the general body of members—add to the names of the forty-five Europeans who have already received it that of a citizen of the United States, the first member of the great English-speaking family beyond the shores of the United Kingdom designated for that honour. Mr. Hunt's position as an architect is one that has been recognised in Paris and London with as much justice and sincerity as in the great cities of his own country. Having first studied in Geneva, he came to Paris and entered the atelier of Lefuel, who was best known as the architect for the completion of the Louvre and Tuileries. He also worked at the École des Beaux-Arts, and, having graduated in the first class, was appointed "Inspecteur des travaux" in special charge of the Pavillon de la Bibliothèque (Louvre), Rue de Rivoli, under Lefuel. Mr. Hunt returned to the United States in 1855; and it was during his second visit to Europe that the French Imperial Government, about the year 1867, offered him a position as an "architecte "du gouvernement," which he was obliged to decline. His executed works in the United States are exceptionally numerous and varied, and perhaps not the least effective is the great domed "Administration Building" now being erected from his designs at the Great Exhibition of Chicago. A reference was made to this building in a previous issue of *The R.I.B.A. Journal* [p. 117 *ante*], and members cannot do better than examine the illustration of it published in *The North-Western Architect*, of Chicago, in January 1892.

"A Disgrace to London."

An evidently impulsive, if not irritable Q.C., who, the other day, arrived late at an appointment because a fallen cab horse blocked the narrowest part of the Strand, wishes to have the churches of St. Clement Danes and St. Mary-le-Strand demolished, or, which is much the same thing, re-erected in some place where they "would be better appreciated." His views on the subject appeared in a letter he addressed to *The Times*, which was published on the 14th inst. under the heading of "A Disgrace to London." The desire of a lawyer to destroy an admired work of architecture is probably quite as ancient as any other feeling of covetousness, and at an earlier epoch would no doubt have been included in the curse

that was visited on those who removed their neighbours' landmarks. There is, however, no necessity — as has been often shown by men who understand such matters—to remove these two churches in order to improve the communication between Charing Cross and Fleet Street. Remove Holywell Street, efface Wych Street, and set back the line of houses on the north side of the Strand facing St. Mary's, and an improvement would be effected not less important in its results than the construction of the great road along the Embankment. There could even be introduced an avenue of trees between the churches, as was suggested some years ago by a well-known member of the Institute; or a long and not too narrow walk could be constructed between St. Mary's and St. Clement's which would form a refuge as agreeable as it would be practical and artistic. This said, there is no further objection to raise to Q.C.'s letter, which contains at least one paragraph of undoubted value, and which it may be not out of place to reprint here, especially as a letter on a subsequent page of this Journal supports the view he takes of the position held by the County Council in respect to Metropolitan improvements. Here is what Q.C. says:—

> For years we have been asking ourselves how long is this to last, and what is the use of a London County Council if it cannot carry out this much-needed London improvement? Two or three years ago, indeed, that Council did bring in a Bill for the widening of the Strand between the churches, which was well enough in its way, but was, unfortunately, weighted with clauses for the payment of "betterment," not only by owners of property who were benefited, but by those who proved that they were actually injured by the project, with the result that the Bill was literally laughed out of Parliament. This year the same or another scheme is to be brought forward, coupled with an ambitious project for the construction of a new street from Holborn to the Strand, which is said to be open to the objection that it strikes the latter street just at the wrong point. But as the Bill is to contain the same provisions as to "betterment" as its predecessor, it will probably share the same fate. What its promoters seem absolutely incapable of understanding is that, if it is a public duty to provide at a cost of some two millions a central place for the administration of justice in London, it is equally a public duty to make that place accessible, and that any "improvement" which will do this will benefit not only "adjoining owners," but the whole of Her Majesty's subjects; and that in a way differing entirely from that in which they would be benefited by the construction of an ordinary street.

The Owen-Jones Student 1891.

Mr. F. W. Bedford has submitted, in addition to his drawings, a diary of considerable length and interest, as a record of his tour as Owen-Jones Student in the years 1891 and 1892. The tour extended from the beginning of April to the middle of December, the working portion being spent chiefly in South Italy and Sicily, and the author deserves especial congratulation on the energy which enabled him to carry on such good work in those places through all the hottest months of the year. The greater part of his journey was over ground familiar to most architects, and striking discoveries of unpublished specimens of decoration could not be expected; but Mr. Bedford approaches his subjects in a fresh and unbiassed mood, which leads him sometimes into criticisms that may well claim to be original. It has also allowed himself a catholic enjoyment of many very diverse kinds of architecture, which must have been as much to his own advantage as it is agreeable to a reviewer of his work. Among the subjects most studied were the wall-paintings in the "House of Livia" on the Palatine Hill, which Mr. Bedford is right in highly appreciating; but his very glowing description and declaration that they are beyond all comparison superior to anything at Pompeii may possibly disappoint other students visiting them for the first time, and appear as if due to the fact that the Palatine frescoes were visited without first-hand acquaintance with those of Pompeii, and especially of the best of the latter, which have been removed to the Museum at Naples. If the author had come fresh from Naples to Rome, instead of *vice versâ*, his enthusiasm about the "House of Livia" would probably have been more moderate; to make a just estimate, comparison must be used to correct first impressions. The mosaics and marbles of Palermo and Ravenna also furnish pleasant and worthy themes for admiration, but space only suffices to say that the Owen-Jones Tour of 1891–92 has been as satisfactory in its results as any that has gone before.

PROCEEDINGS.

Monday, 13th February 1893.

Eighth General Meeting (Ordinary).

[Mr. J. Macvicar Anderson, *President*, in the Chair.]

The preliminary business of the Meeting included the announcement of the name of the gentleman whom the Council proposed to submit to Her Majesty the Queen as a fit recipient of the Royal Gold Medal for the current year, prior to which the President directed that the By-law respecting the conduct of the election be read, namely:—

THE ROYAL GOLD MEDAL 1893.

64. In the case of the Royal Gold Medal the Council shall announce to the members, at a General Meeting, at least four weeks before the Special General Meeting at which the election is to be made, the name of the person they propose to submit to Her Majesty as a fit recipient of that Honour; and any twelve Fellows, desiring to substitute any other name, shall deliver in writing to the Secretary a proposal signed by them, containing the name to be substituted, at least fourteen days before the day of election. If no name be so proposed for substitution before the said time, the nomination of the Council shall be submitted on the day of election to the Special General Meeting. If, however, any such substituted nominations be made, and be not accepted by the Council, the name proposed by the Council shall be first submitted to the Meeting; and if such name be not approved by Resolution, then the other names proposed as above, in the order of the date of nomination, shall be submitted. In any case the award shall be by Resolution of the Royal Institute.

THE PRESIDENT.—Gentlemen, it is with pleasure that I have to intimate that, in accordance with the terms of By-law 64, which the Secretary has read, the Council have nominated Mr. Richard Morris Hunt, of New York, Honorary Corresponding Member, a Correspondant of the Institute of France in the Academy of Fine Arts, in order that, with your approval, his name may be submitted to Her Majesty as the recipient of the Royal Gold Medal for 1893. Mr. Richard Morris Hunt, I need scarcely say, is an architect of culture and eminence in America. Those who know him personally, as I have the privilege of doing, are aware that he is a man of power and individuality. It appears to me that this recognition of the ability of one of her distinguished sons is a graceful compliment to the Republic over the sea, particularly in this year, which is a remarkable one in her history, the year of the Chicago Exhibition—an undertaking of enormous magnitude, surpassing by a very long way anything of the same kind that the world has hitherto seen. The architect of the Administration building of the Chicago Exhibition is Mr. Richard Morris Hunt—(cheers)—and I feel sure, therefore, that his nomination by the Council will be received by the Institute with approval. (Cheers.) The nomination of the Council has been duly intimated to Mr. Hunt, in order to ascertain whether he would accept it, before it was submitted to the Institute, and he writes to the Secretaries as follows:—

GENTLEMEN,—It is with heartfelt gratitude that I accept the nomination for the Royal Gold Medal for Architecture, the gift of Her Majesty the Queen, tendered in your communication of December 1892. After half a century devoted to the study and practice of our able profession, such a nomination and such words of greeting are enough to stir one's inmost soul, and to inspire one to strive more valiantly to raise the standard of monumental art. Many high honours have been conferred on me, far more than my works have justified; but to the Council of the Royal Institute of British Architects I am indebted for the most gratifying of all. With the expression of my most sincere thanks to the Council for its kind consideration of my name, I remain, Gentlemen, fraternally yours, R. M. HUNT.

MR. WM. WOODWARD [*A.*].—Mr. President, I venture to rise, not of course to call in question in any way whatever the decision of the Council, and I have no doubt that the Council have followed precedent in communicating with the proposed recipient of the Royal Gold Medal before the voice of this Institute has been heard. It would appear to me, Sir, to place us in a somewhat invidious position if, after the Council have nominated the proposed recipient of the Medal, and communicated with him upon the subject, the Institute should utter one word which would be, or might appear to be, in disparagement of the distinguished architect whom the Council have selected. I have no doubt, Sir, that your acquaintance and the acquaintance of the Council with the distinguished architect named are sufficient to justify the choice you have made—but I think it would be interesting, at all events to those members who should have a voice in the selection of the recipient of the Medal, if we had an opportunity, even now, of inspecting, not the works,—because we should probably not have an opportunity of doing that,—but of inspecting some photographs or drawings illustrative of the skill and ability of the architect whom the Council have selected. It would, I feel sure, only lead to the thorough endorsement of the choice which the Council have made.

THE PRESIDENT.—Mr. Woodward's remarks seem almost to question whether we have proceeded according to precedent in communicating in the first instance with the proposed recipient of the Medal before submitting his name to the Institute. That has been the custom, and it is obvious that by departing from it we might find ourselves in an awkward position. As regards the second part of his speech, there are photographs of some of Mr. Hunt's works in the Institute Library. Before the Council made the nomination, I got from Sir Henry Trueman Wood, the Secretary to the Royal Commission for the Chicago Exhibition, the loan of Mr. Hunt's working drawings, of which he has copies, for the great central building at the Exhibition; and I think any one who examines those drawings will be satisfied that the honour proposed to be conferred upon Mr. Hunt is by no means misplaced. I had to return those drawings to Sir Henry Trueman

Wood, and I do not know whether I can obtain them again; but perhaps if Mr. Woodward, or any other member of the Institute, desires to see them, I could give him a letter to Sir Henry Trueman Wood at the Society of Arts, and I have no doubt that the latter will be happy to let him see them. [MR. WOODWARD.—I should be very sorry to put you, Sir, or the Council to any such trouble. I only thought that if photographs of any of Mr. Hunt's buildings happened to be in the Library the members of the Institute might have the opportunity of inspecting them.] There are some in the Library that you can see, but I believe it is by no means a complete collection.

THE PRESIDENT.—It is now my privilege to call upon Colonel Lenox Prendergast to read his Paper on the Cathedral of Palma, Majorca. Colonel Prendergast is, as you all know, one of our Honorary Associates—(cheers)—whom I am glad to say we often have the pleasure of seeing here. (Hear, hear.) In that respect he shows his appreciation of the honour that it was our desire to confer upon him when we elected him. He requires no introduction from me in this room.

THE CATHEDRAL OF PALMA.

Abstract of Colonel Lenox Prendergast's Paper.

In the author's introductory remarks he drew attention to the situation of the Cathedral: it had been the ancient stronghold of the Moors, and on it, the site of their greatest mosque, stands the Christian church. The church was designed by Don Jayme of Aragon in 1232, after the rescue of Majorca from the Moors, which took place in 1229. The progress of the Moors in refinement and the arts had been hardly less brilliant and rapid than their progress in empire; and the architectural works undertaken by Don Jayme owed much of their delicacy and refinement to them. The enthusiasm of the Mallorcans at their deliverance by the king of Aragon found expression in the erection of the cathedral church of Palma.

Street, in his *Gothic Architecture in Spain*, when speaking of Sta. Maria del Mar at Barcelona, claimed Palma Cathedral for its prototype. In the Governor's palace there were traces of Moorish work, especially in the foundations; but of Moorish architecture, as such, he could find none. The west front of the cathedral faced the entrance to the palace; the upper portion had only recently been completed, and though its design might have been better, at a distance it did not jar with the rest of the building. The south front was, however, a marvellous creation in Santanny stone, and the effect singular in the extreme. The west door was considered a work of importance. The interior of the church, owing to the formation of the ground and the difference of space separating the arches between the north and south entrances and the remaining arches, appeared considerably larger than it really was. A bishop's throne occupied the centre of the east wall, and above rose the Chapel of the Holy Trinity, standing many feet above the floor of the rest of the church. The finest work, architecturally, was that carried out by Bishop Pedro Ciña about 1373; to that period also might be assigned the three eastern-most bays of the nave; and at that time the effect of the interior of the cathedral must have been singularly fine as a specimen of Gothic architecture and fittings. Having given certain measurements of the columns, length and width of the church, the height of the central nave and side nave, Colonel Prendergast turned to the question of lighting. To a Spaniard the practice of admitting the sun anywhere was not to be entertained for an instant; but the solution of the strange blocking up of window tracery with stone was, to the author's mind, due to the enormous height of the church, which rendered it necessary to strengthen the supports; although, notwithstanding these precautions, several bays had had to be rebuilt. There was one other solution, namely, where the sun entered in force, battalions of flies followed in its wake; but whatever the reason, the side-chapels were practically unlighted, and appeared to have been so from the first. Each chapel, of course, contained an altar, and behind the altar-screens were tombs of bishops with carving well worthy of study.

Turning to the ground-plan of the cathedral, the author described the uses to which the building was put, remarking that a knowledge of the purposes for which ancient buildings were erected was necessary if they were to be restored or appreciated. The plan was simple: three full-size naves or aisles were placed side by side, the centre one having at its eastern extremity the sanctuary which contained the High Altar. The choir was situated in the nave, two bays westward of the sanctuary arch, which was the usual Spanish arrangement, to explain which he described in detail the ceremonies of the Good Friday and Easter-Day services in relation to the planning of the building; and, pointing out the utility of the various parts of the church, said there could be little doubt that the architects thoroughly understood their business and for what they had to provide. The High Altar, consecrated in 1346 by the seventh Bishop of Majorca, was of marble, and above it was a singularly fine "retablo" in sculpture, while several niches on each side contained figures of saints, all admirably carved in wood. In the treasury were several reliquaries of the best period of the architecture of the church. Of these the author mentioned a few, giving the approximate date of each. Those who had charge of the church never seemed to have relaxed their efforts to obtain what was most fitting; the best artists being apparently always engaged. Referring to the stability of the structure, which had at different periods to undergo a process of reconstruction in several directions, he quoted from a document concerning a commission of architects appointed to examine the mischief going on subsequent to the completion of the building, and gave trustworthy Spanish authorities for the dates at which every portion of the work was executed. Going beyond the precincts of the

cathedral, towards the head of the harbour, the author described a remarkable building erected as an "Exchange" for the merchants of Palma, on land placed at their disposal in 1232; the building was not completed, however, until the middle of the fifteenth century. It consisted of a rectangular hall, divided into three divisions by a double row of spiral columns, three on each side, which supported an arched and vaulted roof. Traceried windows and carved doorways of the fourteenth century combined to exhibit what appeared to him an altogether new experience of Gothic pointed architecture as applied to civil buildings. A month had passed after his arrival before he visited the Lonja, or exchange, and during that period mischief of a serious kind had been done. The authorities had decided to renovate the interior. The walls were certainly darkened and stained by age, but there was a tone of colour on the flutes of the spiral columns and ribs of the vaulting which enhanced the effect to such an extent, that to scrape off the patina seemed little short of sacrilege. Colonel Prendergast then described the injury which was being done as follows;—

My visit was paid in company with Mr. Mark, Her Majesty's Consul at Palma, an energetic lover of the arts which the island produced, and imbued with a wholesome horror of the damage that was being done to a monument of such interest as the Lonja. We found that operations had already begun: at one corner, that farthest from the door, they had already done irreparable damage by applying strong acids to the carved work, and were at the moment of my visit engaged in chipping and scraping the mouldings of two of the arches of the vaults to such an extent as seriously to alter their contour. To make a long story short, on return to where I lived, at no great distance off, I sat down and wrote a letter to the Consul, hoping that perhaps some outside notice of what was going on might strengthen any representations he might care to make, so as to induce the authorities to pause in their destructive work. I was not aware of the course he decided to adopt till the day but one following, when I took up a local newspaper and found that the whole of my letter had been translated into Spanish, and appeared with a covering statement from the Consul himself, in the same sense. Had there been time, I would have written home here to this place, and would have asked for assistance from our Council here before writing; but there was not a moment to be lost, and I must, therefore, before reading to you my letter, ask indemnity from you for having presumed to pose as a representative of the Royal Institute in order to avert this great wrong that was being done to an ancient building. If success sometimes justifies energetic action, perhaps on this occasion my offence may be condoned.

Dear Mr. Mark,—I have been more than a month in the island, visiting its buildings, which are of greater interest than what one is in the habit of seeing on the Continent. Only yesterday, however, was I able to inspect a building which, in some respects, exceeds in interest many of the others. I have to thank you sincerely for coming with me to visit the "Lonja," for it may be described as a unique specimen of an art to which, as a member of the Royal Institute of British Architects in London, I have devoted a good deal of attention. I am quite sure that if there was time for me to communicate what I saw to that body in regard to the "restora-"tion" of the Lonja of Palma, there would be a great stir to bring home to the authorities here the great importance of not scrubbing up an ancient building to look as if it had just left the hands of a modern workman.

There is a dignity which age gives to buildings of this character; to remove, therefore, the delicate tone which it has given to the graceful spiral columns and ribs, the great glories of this charming specimen of mediæval architecture, would be an inestimable damage to the building, and would take away from it the play of light and shade which age can alone give the fluted work and mouldings which it should be the pride of the Mallorcans to hand on unaltered to future generations. To change the colour of these features would be to obliterate the obvious intention of the original designer, to represent in stone the *palm* with its spreading foliage as a vault to overshadow the pavement of the hall.

That this was deliberately intended is clear from the fact that the white stone of Mouro was employed in the fittings of the vault in order to accentuate the poetic allusion to which I have referred. Time has done its share in completing the picture by producing a dignified shade of colour to the columns and their ribs, and there can be no question that if they are scraped and made to look bran-new, the building will suffer to a degree that those who are now inclined to make this experiment have little idea of.

There is another civil building of a later date in Palma, which ought to be preserved with jealous care—the Casa Consistorial. It would be a matter of concern to lovers of art all over the world should these two specimens of what the city in its palmy days of commercial activity was able to raise for municipal and public purposes be allowed in any way to lose the impress of the original hands which built them. I trust, therefore, that you, who live on the spot, and are imbued with such genuine love for the works of art in this interesting city, will use such influence as you can in the direction I have indicated.—Very faithfully yours, Lenox Prendergast.

F. W. Mark, Esq., British Consulate, Palma.

The result of all this was that, in about a week, there appeared in the same newspaper a long letter, in Spanish, from the President of the Restoration Commission, replying in somewhat petulant terms to the statements we had made. Meantime, a strong feeling had arisen in the city, not only amongst ordinary persons, but in the ranks of the Commission itself, that the President, with his *protégé*, the so-called architect of the work, had taken too much upon themselves; in short, our views found favour, and the President was loudly blamed in every direction. This shortly reached the ears of the Government at Madrid, who immediately stopped the supplies, with the result that before I left I was informed that the scraping business at the Lonja had ceased, and that we should hear no more of it. The Casa

Consistorial, to which I had made allusion in my letter, is, I am told, not now to be pulled down, as contemplated, to make room for a feeble imitation of the Lonja; and that a decision has been made to repair the roof, to which belongs the striking overhanging eaves, the condition of which had been the excuse for the destruction of this interesting town hall.

Colonel Prendergast concluded his Paper as follows:—

Mr. President, you will have observed that, in the treatment of the subject which I have ventured to bring before the Institute on this occasion, I have endeavoured as far as possible to suppress my own individual criticism of architectural detail as exemplified in the buildings under discussion. It appeared to me that, for one occupying the position I do in the distinguished body I have the honour of addressing, it would be presumption on my part to attempt to bias a decision that will be formed by those far more capable than I am of appreciating the architectural value of the works to which I have directed their attention. I am fully conscious of the unique value of the venerable buildings whose claims it has been my privilege to bring before you; and it is because in my opinion no adequate judgment could be formed as to their real worth, unless account were taken of the circumstances of their origin and the special surroundings to which, during a chain of centuries, to this very day, these walls have constantly borne witness, that at the risk of wearying you I have diverged towards matters which I felt should accompany any mere enumeration of architectural details. I hold that as architecture is the most enduring exponent of the life of a people, so, *per contra*, its meaning cannot be understood without reference to that same life which produced it.

Discussion.

The PRESIDENT.—I could well have wished to have seen a larger audience to listen to the very interesting Paper of Colonel Lenox Prendergast; but, as you are aware, in addition to the inclemency of the weather, there are attractions elsewhere to-night, and crowds have gone further south. (Laughter.) It is gratifying to find that Colonel Prendergast occupied his holidays in Majorca in such an intellectual pursuit as the thorough examination of the ancient buildings of the island, and further that his visit has been productive of so much good in bringing about the preservation of one of the interesting buildings he has described. (Hear, hear.) Some of you who may have visited these buildings may desire to offer remarks in connection with them.

Mr. WM. WHITE, F.S.A. [*F.*]—Mr. President and Gentlemen, there is a mass about this building which one rarely finds in such a building, and that without any attempt at a tower. [Colonel PRENDERGAST.—There is a tower, but it is hidden.] In any case the tower does not come into the grand outline of the building, which is of itself quite sufficient to tell its own tale as we see it in the various views. It does seem to be a most wonderful building, and the description of it has been made the more interesting by the uses which the lecturer has explained to us. I hope I may be permitted to propose a vote of thanks to the lecturer for his interesting Paper. (Cheers.)

Mr. H. W. BREWER.—Mr. President, Ladies, and Gentlemen, the fact of the matter is that the drawings exhibited are not mine, but my son's. He has been to Majorca, and I have not been to Majorca. However, with that modesty which I am glad to say still shrouds youth in this country, he is too shy to get up and address his elders, and therefore he has asked me just to say a few words; but of course I labour under the disadvantage of not having been to Majorca. I merely judge of Palma and its magnificent cathedral from photographs, drawings, descriptions, and long conversations with my son and other gentlemen about it. There is one very remarkable feature, it seems to me, about the treatment of this cathedral. The plan undoubtedly is purely Southern. It is like the great Church of Santa Maria del Mar at Barcelona, which may possibly be by the same architect, Jayme Fabre, who is supposed to have had something to do with Santa Maria del Mar at Barcelona, though Mr. Street does not seem quite certain whether he was architect or consulting architect. Undoubtedly he was the architect of the great cathedral at Barcelona, and when the cathedral at Barcelona was erected this Mallorcan architect, Jayme Fabre, was called in by the Bishop of Barcelona because he had built the large Dominican church in Palma. This was supposed to be one of the most wonderful churches ever erected, on account of the great space and the smallness of support of the covering of this vast space. It could, however, have been nothing in comparison to the enormous cathedral at Palma, which I presume was not built, or, at any rate, not completed, at that time. The notion of a great cathedral with a span of somewhere about 65 feet, and then with aisles of about 30 feet, with chapels, the whole thing making a width of about 200 feet, is so gigantic that it almost takes one's breath away; and I am not astonished at what Colonel Prendergast has told us, that there have been some very serious accidents, and that some of the arches have fallen down at various times. However, the cathedral must be pretty firm, because a serious earthquake took place in Palma when the earthquake happened in the Riviera, but it simply succeeded in cracking one of the arches. Colonel Prendergast has referred to the peculiarity of those large blocked-up traceried windows. It seems to me that that points to a Northern origin, or Northern study for the detail. It is not likely that an architect working in the South, where he wanted to make a dark church, would naturally invent large traceried windows; and it looks to me very much as if he had some German notions in his head. I cannot help seeing in many respects great similarity between the Cathedral of Palma and some of the great churches on the Baltic. We find those very lofty and perfectly plain octagonal columns without any shafts in St.

Mary's, Lubeck, and many churches in the north of Germany. The tracery of the windows also seems to me to have a very German character about it. It is by no means impossible that Jayme Fabre, as they called him, was a German of the name of Faber. (Laughter.) At any rate he may have been descended from a German family. Whether that be so or not, there is this singularly German look about the details of the buildings, which do not coincide with its Southern plan. Of course we find exactly the same kind of thing at Milan, where we know German architects were employed. The German architects adopted the great Southern plan, but they welded in with it their German detail; and, moreover, there appear to be in the island of Cyprus three very remarkable churches which, from the illustrations that I have seen of them, seem to show the same peculiarity: they are the Cathedrals of Famagousta, of Nicosia, and the Abbey Church of Dalapais. They all have this simple Southern plan, with a vast nave and great aisles, but they have very delicate and pure German tracery, which I do not think could have been of Southern origin. The whole point is one of very great interest, because, as Colonel Prendergast has shown, this cathedral seems to have had nothing before it to lead to the kind of development of architecture which we see there; and that rather leads one to suppose that the general plan of the church may have been adopted from Spain, and that the pure and simple but very beautiful detail which we see may somehow or other have found its way thither from some part of Germany—probably the north. At any rate, it is one of the most noble buildings in Europe. (Cheers.)

Mr. OCT. HANSARD [*F.*].—Sir, I rise to second the vote of thanks to Colonel Prendergast; but I feel that there is something more than that due to Colonel Prendergast. I think that, as a body not desiring the furtherance of the restoration, but the preservation, of ancient monuments, we ought especially to thank him for the interference, so to speak, that he undertook with such distinguished authorities as the Spanish; and for that admirable letter in which he expressed his desire, as an Hon. Associate of the Institute, to prevent anything in the way of destruction of such an interesting monument as the Lonja. We owe something to him for the careful manner in which he has led us up to thoughts to which too seldom, it appears to me, men are led who write hastily on architectural monuments: I mean the advantages derived from searching fully into the origin of a work. His picturesque descriptions of the aisles of Palma Cathedral, and the ceremonies performed in them, were something almost equal to the dream of Charles Dickens * respecting Venice.

Mr. W. H. JAMES WEALE.—I wish, Sir, to point out that between the Netherlands and the Balearic Islands, both in the fourteenth and fifteenth centuries, there was considerable communication, and that in Bruges there were works of art which were sent from Majorca by the Flemish residents there to that town; and I have little doubt that, just as in the mainland of Spain Netherlandish art certainly had a very great influence, especially in the fifteenth century, so also it is quite possible that Netherlandish architects may have influenced details in the Cathedral of Palma. Lubeck itself owed a great deal to Flemish architects, and in Bruges and the other Hanse towns, both in the Netherlands and on the shores of the Baltic, which were in constant communication with one another, certain similarities may be found in the planning and also in the manner of disposing of the vaulting and the pillars without capitals. We know, for instance, that in Antwerp and in many Netherlandish churches there are no capitals to the pillars, and the same is the case at Riga, Lubeck, and other churches along the Baltic.

The PRESIDENT.—I think we may assure Colonel Prendergast that we not only absolve him for having taken upon himself to act as our representative, but that we are grateful that the Royal Institute of British Architects had in the island of Majorca at the period of his visit a representative so intellectual and so public-spirited as he proved himself to be. (Cheers.) I have great pleasure in putting the vote of thanks to Colonel Prendergast for his able Paper. (Cheers.)

Colonel PRENDERGAST [*H.A.*]—Mr. President, Ladies, and Gentlemen, I ought to express to you my thanks for your kindness; but the real truth is that your thanks are due to those whose work you see behind me. There are some most interesting drawings here. Mr. A. N. Prentice's and Mr. H. Rimmer's drawings were done on the spot. I happened to see them at work in the church myself; and, if it is any gratification to the Institute to know how those whom it has sent out on occasions of this kind work, I have great pleasure in stating that I can bear testimony to the hard work that was done by them, and to the results, some of which you see here. Some of the photographs, though very small, are of very great interest; some have never been done before; they are only scraps and fragments, but they are worth looking at as indicating the nature of the work.

* This appears in Dickens's *Pictures from Italy*, published in 1846 by Bradbury. A later edition with illustrations, entitled *Pictures from Italy and American Notes*, was published by Chapman & Hall in 1862.

MINUTES. VIII.

At the Eighth General Meeting (Ordinary) of the Session, held on Monday, the 13th inst., at 8 p.m., Mr. J. Macvicar Anderson, *President*, in the chair, with 24 Fellows (including 9 members of the Council), 15 Associates, 1 Hon. Associate, and 18 visitors, the Minutes of the Seventh General Meeting (Ordinary) held on the 30th ult. [see p. 178, *ante*] were taken as read and signed as correct.

The decease of Walter Charles James, Lord Northbourne, *Hon. Fellow*, was announced.

The following Fellows, attending for the first time since their election, were formally admitted and signed the Register, namely:—Oliver Caldwell (Penzance) and Henry White (Penzance).

With reference to the award of the Royal Gold Medal for 1893, the Secretary having read By-law 64, the President announced, in accordance therewith, that the Council proposed this year to submit to Her Majesty the Queen the name of Mr. Richard Morris Hunt, *Hon. Corr. Member* (New York), as the recipient of the Royal Gold Medal, for his executed works as an architect.

A question by Mr. Wm. Woodward [*A.*] with reference to photographs of Mr. Hunt's executed works was answered by the President.

The President announced that under the provisions of By-law 20 the Council had reinstated Mr. John Mansfield Ferguson in his former position of Associate [see Minutes of General Meeting held 19th December 1892, p. 104 *ante*].

A Paper, by Colonel Lenox Prendergast [*H.A.*], on "The Cathedral of Palma, Majorca: its "origin and development, with some notes of "minor buildings in its neighbourhood," was read by the author. In the discussion which ensued Mr. William White, F.S.A. [*F.*], Mr. H. W. Brewer, Mr. Octavius Hansard [*F.*], and Mr. W. H. James Weale, took part, whereupon it was

RESOLVED, that the thanks of the Institute be recorded to Colonel Lenox Prendergast for his Paper.

Colonel Prendergast having acknowledged the compliment, the Meeting separated at 9.45 p.m.

MR. CAWSTON'S PAPER.

ADVANTAGES OF A GENERAL SCHEME IN MAKING LONDON IMPROVEMENTS [p. 159 *ante*].

13 *Southampton Street, W.C., 14th Feb.* 1893.

GENTLEMEN,—I was not able to be present at the Institute on the 30th of January, when Mr. Cawston's Paper on the above-named subject was read and discussed. The matter is one upon which I should like to make some observations.

With the general idea of having a settled plan prepared, to the ultimate carrying out of which all spasmodic improvements or clearances should have an eye, all must agree; and I think Mr. Cawston has well grasped the needs of a great metropolis. Certainly his proposed dealing with Gray's Inn, as illustrated, must commend itself to all who know the present unsightliness of that Inn as viewed from the Gray's Inn Road, with that dreadful eyesore, the blank brick wall, on the pavement line. I do not see, either, why Lincoln's Inn Fields should not be opened up, as Mr. Cawston suggests, but I entirely disagree with his suggestion to appropriate the sites of the Foundling Hospital and the Military School at Chelsea for workmen's dwellings. Both those institutions are interesting landmarks of Londoh, and to cover them and their present open spaces with workmen's dwellings is a proposition which ought not to be entertained.

But the part of the discussion which has considerably surprised me relates to the London County Council and its dealing with metropolitan street improvements. Mr. Frederic Harrison (Chairman of the Improvements Committee) spoke of some settled scheme which was not open to the public, because the result would probably be a very widespread land speculation. He referred to the extreme poverty of the Council for any purposes of improvement, and the necessity of going to Parliament to obtain leave to borrow the money; but he did not—neither, I regret to say, did a single speaker who followed him—utter one word as to the real reason why the Strand improvement and the new street from Holborn to the Strand are where they were five years ago. He did not even mention the little word "better-"ment," which is at the root of the whole matter of delay; a delay caused solely and absolutely by the Council itself, in which Mr. Harrison takes the lead on this very question. Surely members of the Institute cannot have forgotten that the Legislature agreed to the Strand improvement as passed by the Council, with the sole exception of the principle of "betterment," which was proved to be absurd as set forth by the Council! and that when the Council heard the decision of Parliament they said, "Very well; if we cannot "get 'betterment' we will not do the street at "all!" Why, that is the sum and substance of the whole reason of the neglect of the Council to carry out that improvement. And as to the new street from Holborn to the Strand, the same fatal importation of some extraordinary idea of "getting "at the ground landlords" stops the way. The Council appears not yet to understand that the duties of a purely municipal authority may, and should, be kept quite distinct from Imperial considerations of taxation and rating; and that when Parliament decides, after prolonged discussion, and after hearing all that the London County Council has to say upon the subject, that a street improvement may be at once carried out, it is the plain duty of a municipal body, which should be oblivious of political motives, to proceed at once with the work.

What I have stated is the real reason of the block, a block which did not exist even in the old days of the Metropolitan Board of Works; for, however much that old Board may be the object of adverse criticism, it did carry out large schemes of street improvements, and it did not let London wait because abstruse political questions had been imported into its discussion chamber, and incorporated with practical schemes of purely municipal concern.—I am, &c., WM. WOODWARD.

LEGAL & PARLIAMENTARY NOTES.

Power to pull down.

SMITH APPELLANT, LEGG RESPONDENT.

This case was tried in the Queen's Bench Division before Lord Coleridge, Lord Chief Justice, and Mr. Justice Cave, and the annexed

report of it appeared in *The Times* of the 2nd inst.

This case raised a question of considerable importance—whether the stringent power given under the Metropolitan Building Act of ordering buildings to be pulled down if not erected in accordance with the provisions of the Act can be exercised after the buildings are completed, or only while they are in course of completion. It had arisen under these circumstances. In January 1892, the appellant, a builder, was employed by one Teppin to erect in West Hackney a building, which in March was completed. The respondent was district surveyor of West Hackney under the Metropolitan Building Act, 1855 (18 & 19 Vict. c. 122). The appellant, the builder, did not give him the notice required under section 38 of that Act, and the surveyor did not discover that the building was being erected until April, by which time it was completed. On July 22 he gave the notice under section 45 of the Act to alter the building, and the builder not having complied with it, he was summoned under the Act, when it was objected that as the building had been completed the proceeding was too late. The magistrate thought otherwise, and made an order on the builder to comply with the notice—that is, to enclose the building with stone walls, &c. The builder appealed.

Mr. F. Law appeared on his behalf, and contended that on the terms of the Act it was clear that its provisions only applied to buildings in course of erection, otherwise great injustice would arise, and he cited "Parsons *v.* Tunewell" (44 *Justice of the Peace*, 296).

Mr. Daldy, on the part of the district surveyor, contended that under section 105 the proceeding was in time. [Lord Coleridge.—If you are right, very strange consequences will follow—that the notice, which may be to pull down a building, may be given after the building has been sold.] The district surveyor, as in the present case, may not have noticed the building until it was completed. [Lord Coleridge.—He ought to be constantly going about his district and keeping his eyes open.]

Lord Coleridge, in giving judgment, said the counsel for the respondent, who had argued the case very fairly and ingeniously, could not dispute that if his view were correct very strange consequences might ensue. He would assume that in this case a notice might have been given, if in due time, to pull down the building. But here no notice was given until it was completed. It was said the district surveyor was not aware of it; but he should have kept his eyes open, and if he had he would have seen it. Under the Act (section 145) the surveyor, while a building was being erected, could have given notice to the builder if the provisions of the Act were not being complied with. The proceedings were to be against the owner or builder while the building was in course of erection. But in this case there was no notice given until the building was completed. And if such notice was in time, it would follow that though the building had been completed and paid for, and sold, still the notice might be given, to affect an innocent purchaser. And, again, the builder might be dead, or might have retired from business. Could it be supposed that he or his executors were to be held liable? To suppose that these proceedings could be taken after the building was completed would be to suppose that the Legislature had intended an outrageous injustice—an outrage upon good sense and justice. There was, moreover, a decision to the contrary in the case cited. If there had been no such decision he should have been prepared to take the same course, and that decision confirmed him in his opinion. He had no difficulty, therefore, in holding that the magistrate was wrong, and the order must be set aside.

Mr. Justice Cave concurred. He never, he said, had heard a more outrageous construction of an Act of Parliament than that which had been attempted in the present case. The district surveyor had only power to give his notice while the building is in course of erection. If he makes the discovery within the time mentioned he may give the notice, but if he does not discover the building until it is completed he cannot give the notice. To suppose that he could give the notice after the building was completed was downright nonsense, and would be grossly unjust, for it might affect subsequent purchasers. The magistrate, therefore, was wrong in making the order.

Appeal accordingly allowed.

No doubt the case is of great importance, because it decides that if a builder should complete a building, contrary to the Act, and such building escapes the vigilance of the district surveyor, there is not any power on the part of the district surveyor to compel compliance with the Act. On the other hand, however, the remarks of the Lord Chief Justice are weighty, and thoroughly understandable, particularly when he refers to the contingency of the building having been sold, and then required to be altered to conform to the Act of Parliament, in which case, no doubt, distinct injury would be committed upon the unhappy purchaser. The case may lead to extra trouble and care on the part of district surveyors, but it might be very unwise on the part of builders to endeavour to take advantage of this case, and proceed to erect buildings contrary to the Act in the hope that they will escape the notice of the district surveyor until they are completed, when his action would be futile.

Wm. Woodward.

CURRENT CRITICISMS. II.

Truth and Architecture; Marmaduke and the Private Palaces of London—*The Morning Post* and *The St. James's Gazette* on the R.I.B.A.—The Immediate Results of Obligatory Examination.

When *Truth* first came into the newspaper world its great founder, with innate modesty, evidently refused to believe that it would prevail as it has prevailed. His first number, which appeared in January 1877, was sufficient to prove this, for, though a better Parisian than Londoner, he headed his first Notes (now named "Entre "Nous") with the barbaric title of "On Dits," and he signed them "Truthful Tommy"—a signature that shrunk some five months later to the initials "T. T.," which, in the second week of July 1880, disappeared altogether. From that period the pages of *Truth*, under the heading "Entre Nous," have apparently been written by the great founder himself, Mr. Henry Labouchere, now the Honourable Member for Northampton. Indeed, it has never been denied that, during a long career of

usefulness—over a thousand pages of print—it is his *Ego* that has pronounced upon the misdeeds of money-lenders and the misjudgments of unpaid justices; and it may be added, with little chance of contradiction, that there is not a trade, profession, vocation, or calling that comes under the tax-gatherer's ban, with which he has not had a passage of arms—or at least pens, to be strictly accurate—architecture now and again having been no less honoured than the rest.

On the 2nd inst., for instance, *Truth* stated that "Architects can never understand, when they "have to deal with a public building, that utility "is the primary requisite." Now had the author contented himself with that proposition, many people, even a few architects, would have agreed with him; but he added: "I (and I mean any "sensible person who is not an architect) could "build a House of Commons in six months, in "which there would be a seat for every member. "Give me the money strictly needed, and I would "engage to do this in the time named, under a "heavy forfeit." Whereupon, a young man of *The Pall Mall Gazette*, who was evidently determined to take the tide in the affairs of men, for which so many are waiting, at the flood, called on Mr. Labouchere; and not only saw in the flesh the founder, in other words the incarnation, of *Truth*, but he reported the interview in *The Pall Mall* of the 6th inst. According to that young man, Mr. Labouchere said, with absolute truth, "My ideas on the subject are of the vaguest "and most general description, but I think that "by having a House [of Commons] of octagonal "shape, say, much more accommodation could be "provided without necessitating any unwieldy "proportions;" and then he volunteered: "Let me "draw it for you," which was high-water mark for his inquisitor. "He [Mr. Labouchere] could "only get six sides into his octagon," says the young man of *The Pall Mall Gazette*. "He made "half a dozen attempts, each more hopeless "than its predecessor, and then gave up with a "burst of laughter at the ludicrous collection of "intoxicated-looking geometrical figures he had "created." Nevertheless, quite undaunted, he afterwards offered to make another drawing, but the young man begged he wouldn't; and Mr. Labouchere ended with the very just and sensible remark—with which every architect will concur—that as there are 670 Members of the House of Commons, there ought to be 670 seats in it to hold them.

One observation made by the great founder of *Truth* during this remarkable interview seems to have struck the young man of *The Pall Mall Gazette*, as it must strike every other student of the Labouchere sque. Asked by his inquisitor whether he would pull down the present House of Commons, Mr. Labouchere replied, "Rather!" —this avowed desire to destroy being seemingly unaccompanied by any corresponding power to rebuild, or even describe on paper, the House of Commons he a week before had engaged to erect in six months, under a heavy forfeit, provided only that—so I venture to infer—sensible men who were not architects would give him the necessary money.

It is almost a needless truism to state that the great founder of *Truth* has many followers, but it is not so generally known perhaps that his work is aided by one who has architectural aspirations—I mean the Linkman Marmaduke. This authority now and then treats of an historical monument—the work of Jones, or Adams, or Muggins, according to circumstances—as the place where poor Lord This breathed his last, or the Duke of That had an attack of the gout. The recent sale of Harewood House to the Royal Agricultural Society has elicited a sigh from Marmaduke. In his letter of the 2nd inst. he describes it as "another of the private "palaces of London which was designed by "Adams" [*sic*]; and previously, in his letter of the 26th ult., he had written that "Adams, "who, by the way, designed several of the big "private palaces of London, was the architect of "Nostell Priory, where Lord St. Oswald died last "week. Spencer House, St. James's, was built by "the celebrated Sarah, Duchess of Marlborough." Observe the careful discrimination between the *designing* of a private palace by one of the Brothers Adam, and the *building* of another by Sarah Jennings; and of course it will be seen at once that Marmaduke the Linkman uses the generic term of "Adams" to signify the Brothers Adam, who left their name to Adam Street, and Robert Street, and other streets in the Adelphi. As for Vanbrugh's arch enemy, though she died in 1744, at the age of eighty-four, she may have seen the beginnings of the present Spencer House. About the time of her death its front towards the Green Park is stated, with some authority, to have been designed by John Vardy; and that towards St. James's Place by James Stuart, about 1756. Nostell is given in the *Vitruvius Britannicus* [vol. iv. p. 8] as designed and conducted by James Paine for Sir Rowland Winn in 1751. Subsequently one of the Brothers Adam designed some additions or alterations to it, which were not carried out by him, one new wing not having been completed as late as 1831.

There is no intention, when noticing his "Adams," to reflect on the Linkman's parts of speech. He has only repeated what artist-decorators and art-upholsterers and art-critics have written scores of times before his innocent effusions appeared. Have we not lately had shoals of observations on the "Adams style"? Has it not been commented on, even as the "*style cottage*" and the "*style écurie*" have been commented on by confrères and colleagues on the other side of the "silver streak," and even as British novelists have described the "bijou villa" and the "cottage "*orné*"? Indeed, the great founder himself of the journal which Marmaduke enriches must have chuckled more than once over the French Shakespearian critic who dubbed his subject "le "divin Williams." It is certain that Mr. Labouchere, safe in his tub, will have at least three reasons, more or less divine, to show that the error, if error at all, is human; and, did the cir-

cumstances warrant expenditure of sufficient time to prove it, even logical in conception. "The "shallow world," for so says the Linkman in his letter of the 26th ult., "has in all ages neglected "its most eminent nonentities," and I have therefore but one suggestion to add. Let Mr. Labouchere make his Linkman famous by entrusting Marmaduke with an article on "Architecture: an "Art or a Profession?" By so doing he may secure the ultimate benefit of men of sense, who are relatively quite as numerous in the architectural profession as in any other; and, what is as much to my purpose, the immediate good of the Royal Institute of British Architects.

Amidst the flood of ink recently poured out on the subject of architectural examination—some of it quite feminine in its invective—there are two exceptions which merit recognition by those who have the welfare of architects, and the consequent advancement of their means of working, at heart. I allude to articles which appeared in *The Morning Post* of the 8th inst. and in *The St. James's Gazette* so far back as the 17th November last, the latter being, to quote from a recently expressed opinion of Mr. Labouchere, one of the two best edited journals he knows. Here is what *The Morning Post* says about the Institute and examination for architects:—

The Royal Institute of British Architects was founded in 1837 as a society of connoisseurs and architects for the advancement of civil architecture; and its first Presidents were laymen of distinction. In the course of time the management passed entirely into the hands of the architects, the laymen becoming merely honorary members. It was granted the title of Royal, received a charter, distributed studentships and prizes, and instituted a voluntary examination. So far all worked well, the members increased, the general body might exclude whom they pleased from membership, and wealth increased also. Then arose a trouble such as is always likely to happen in kindred cases. This was the transition from what was practically a club to what was practically a trade union. An examination was proposed. . . . In the wake of the examination, first instituted in 1882, the difficulty of exclusion arose. How, if the Institute professed to examine and qualify architects, could they exclude any person who chose to present himself for examination? Then a second Society of Architects arose, and promoted a Registration Bill, which was speedily dropped, its principal opponents being the Council of the Royal Institute, who plainly hinted that they did so because they wished at some future date to promote such a Bill of their own. This measure drew forth a protest in the Press, headed, "Architecture: A Profession or an Art?" which was signed by several of the leading architects and many painters and sculptors of note. The contention of these memorialists was that it is impossible, architecture being a fine art, to test a man's capacity as an architect by examination. . . . To an outside mind it might appear that whether a man is an artist or no—that is, a true architect—rests entirely with himself. He must learn to construct before he designs, and if any test that be applied to his constructional knowledge kills his designing power, then there cannot be anything of genius in him; such a boneless being would never become an artist. The question of the value of examinations has ever been a moot point, but in deciding for or against them it is the general case which has to be considered, not the particular. To quote Lord Grimthorpe again, although in a different sense to his meaning, "emi- "nent success is rare, and general rules can only be "provided for ordinary work, and not for anything "requiring invention." Now, it is for the ordinary work that this examination is proposed, not for the thing requiring invention—that is, artistic power. It would seem that no great harm would be done if every architect passed such an examination.—*Morning Post*, 8th inst.

The whole article, of which only extracts are given above, is so sensible, and so evidently the work of a man who understands what he is writing about, that it may appear ungracious to notice inaccuracies of detail which occur in it. But it is necessary to state that the Institute, which was founded in 1834, and obtained the grant of its first charter in 1837, was never even practically a club, never even a society of connoisseurs and architects, the management having always been in the hands, exclusively, of the professional members; and it is not a trade union. Conformity with its schedule of charges, which forms no part of its charter and by-laws, is in no sense an obligation of membership; the schedule merely represents professional custom and constitutes a basis of agreement or a scale of remuneration. Its wealth—Heaven save the mark!—like a man's income, is relative; and may the Editor of *The Morning Post* never see its annual balance-sheets, or have to ask for a grant from the £600 annual income of the Architects' Benevolent Society! The Council of the Royal Institute of British Architects have consistently opposed not one but many Registration Bills promoted by the Society of Architects, and the Institute Council have never hinted, even obscurely or indirectly, that they wished to promote a Registration Bill of their own. It is true that individual members of the Institute have publicly supported the principle of legal registration, and one at least has publicly urged that the only possible and proper registration was membership of the Chartered Body; but, in so doing, they acted on their own responsibility, and with no official authority.

The St. James's Gazette, criticising the assertion that an architect must be an artist, nothing less and nothing more, expresses public opinion on this subject in the reply:—"Most of us would "probably prefer to have our houses designed by "a man who possesses the technical training and "the practical knowledge which alone can preserve "him from costly mistakes." Again, combating "the fatuous argument" that by examining architects bad building will not be got rid of, *The St. James's* says:—"Nor shall we do so if "we don't examine!" Examination, it argues, may not improve art or foster invention, but neither is it going to worsen them. Here is the gist of a very thoughtful article in its author's words:—

It is true that the number of artistically capable architects is not great; but we fail to see how the

number will be reduced by requiring from postulants a variety of professional acquirements which appear to be very valuable, if not indispensable. If a budding young architect has genius he will not lose it because he has to pass an examination in the properties and uses of building materials. . . . It is not proposed to teach architects æsthetics by examination, but to ensure the practical knowledge without which æsthetics are comparatively useless. The conclusion of the matter seems to be that it is better to leave architecture as it is. Let those who wish to call themselves F.R.I.B.A. qualify to do so, while those who think they can do better work without satisfying the tests of the Institute remain outside. Everybody would then be satisfied, and there would no longer be any ground for accusing the Institute of trying to become a trade union. But to argue that a good working knowledge of construction and materials, or even of ancient lights and the Building Acts, will unfit a man for designing an artistic façade is rather too extravagant. —*St. James's Gazette*, 17th November 1892.

The tests of the Institute! Nothing but a "cram "examination" started only to benefit the Institute and help to swell its overflowing coffers! What results can be obtained from a week's examination, written, graphic, and oral, in history, architectural details, sanitary science, the art of design (or rather plans, sections, and elevation of a building), materials, and constructional science? —a question, by the way, often asked of late, and one to which it has been my duty recently to afford, quite involuntarily, a most conclusive answer. I have had to look back, through some forty years of the Institute records, to seek out the beginnings of the great movement now distinctly visible throughout the length and breadth of this island, and in a portion of Ireland—I mean the movement that tends to the foundation, in each of those non-metropolitan centres containing a Society of Architects allied to the Institute, of an educational curriculum which those young residents in the locality who aspire to be architects are encouraged and expected to follow.

Much has been said about a Memorial which was signed by a number of eminent persons who thought they were thereby furthering the great cause of Art in general and architects in particular. But it is dead, and buried; and some very handsome tombstones have been lately set up to its memory by the public press, which in style and composition are not unworthy of the defunct. It was not the first paper of the kind received by the Institute. About thirty-five years earlier, another memorial, not signed by eminent persons, but by the President of an Association of students and draughtsmen, prayed the Council of the Institute to establish "an exami- "nation which should eventually serve as the "basis for the issue of such a diploma as should "certify that the holder thereof is fully qualified "to practise as an architect"; and declared that the step had been taken from a consideration of the difficulties which then "beset the early stages "of architectural education." The result was the establishment of a voluntary examination, which languished; but this I pass over. I also pass over the numerous discussions at the Institute, and in the professional press, on architectural education, both towards the close of the sixties and the beginning of the seventies; and then it was that there appeared in *The Quarterly Review* certain articles on the subject of architecture and architects which had not only a scholarly ring about them, but were written apparently by a gentleman. A year or so more, and one—the last —was largely answered by no less an authority than Sir Edmund Beckett, Q.C. (now Lord Grimthorpe), whose pertinent queries, at a General Meeting of the Institute, had at least something to do with the subsequent passing of the By-law, which determined that on and after May 1882 no one should be admitted an Associate until he had passed an examination.

Even then, however, though a supreme moment had been reached, very little change or development was apparent in the teaching capabilities of the profession. Young men picked up desultory information in their masters' offices, but no one taught them; and if they did not seek regular teachers, it was not only because there were few to be found, but because there was little to be gained by such a proceeding. Two years afterwards the story of the Institut de France and its several academies, especially that of the Fine Arts, with the École des Beaux-Arts, was told very fully in Conduit Street, and followed by inquiries into the German as well as the French systems. In 1886 it was found that already the United States had four teaching centres for architects, which were working well, and which were described in *The R.I.B.A. Journal* in 1887.

But no one who knows anything about the press, and its power of initiative, will assume for a moment that any amount of descriptive writing would have alone effected the change now felt in London and throughout England, so far as regards the means of obtaining a rudimentary education in architecture, outside a practitioner's office. If there exist at this hour good set curricula which members of the Architectural Association and independent students can follow with confidence, and complete with profit, it is not due to literary or rhetorical effort, but to the very unsentimental fact, that to become Associates of the Institute an examination has to be passed, and to be passed only after hard study. These students see clearer than some of their masters that the Institute means them well, and they accept the honourable obligation which membership involves, confident that, in so doing, they are true to themselves and their professional brethren—no mean augury that they will also be true to the clients who may ultimately employ them.—William H. White.

The Manchester Society of Architects.—At the General Meeting of this Society, held on Tuesday the 7th inst., with Mr. Edward Salomons [*F.*], the President, in the Chair, Mr. John Slater [*F.*], B.A.Lond., read a Paper on the Buildings of the Ancients. The Paper, it is stated, proved of considerable interest.

No. 9, Conduit Street, Hanover Square, London, W.

THE GODWIN BURSARY 1892.—Mr. Locke Worthington [*A.*], the Holder of the Godwin Bursary for the year 1892, has submitted a memoir * upon Workmen's Dwellings in Paris and elsewhere in France, which I have carefully read, and upon which I have been asked to report.

The description, a document of thirty-eight pages, besides two appendices, goes over the entire subject, and gives details of all the salient points in respect to the housing of the working classes, as now being practised, not alone in Paris, but at Rouen, Marseilles, Lille, Havre, Lyons, and other large provincial capitals of France. It renders particulars of many important representative buildings recently erected according to varying systems of construction and capacity, the cost in relation to accommodation, the results obtained, with subsidiary matters.

The systems described are those adopted by the principal societies concerned in the welfare of the working classes, railway companies, and by private enterprise; and it may be accepted as a valuable record of the principal works now being carried out in the country. The examples given consist of block dwellings erected in Paris, and of workmen's villages and cottages.

Among the subjects named are references to the incomes derived, the cost of construction and administration, notices of cooking apparatus supplied, lock-up cellars for each tenement, separate gas installations, w.c.'s, &c. The introduction of shops on the ground floors of certain of the blocks, of a washing-room for common use, the avoidance of papered walls and of angles which hold dust and vermin, are points which come in for passing remarks, as do also some of the systems by which tenants may in some cases become owners of their tenements by payment extending over twenty years. Not the least interesting part of the description is a digest of the resolutions of the "Congrès National des Habitations à bon Marché," held at Paris, 1889, which might with advantage have been extended to greater length; and Mr. Worthington's own opinion as to the advantages of the erection of these dwellings by private enterprise rather than by municipal bodies will be read with interest, although some statements in support might have been added.

The plans consist of twenty-eight sheets, and they indicate a large number of representative examples, showing buildings of all the varying classes referred to. They

* Report on the Housing of the Working Classes in Paris and the Towns of France, accompanied by plans and drawings arranged in two portfolios, viz.:—I. Block Dwellings (17 sheets); II. Cottage Dwellings (10 sheets). The French architects from whose drawings the plans, &c., are stated to be taken are:—MM. Chabrol, Émile Leménil, Félix Paumier, Félix Narjoux, E. Lecœur, C. D'Albert, F. Mangini, E. Cacheux, Émile Brûlé, Georges Guyon, Lemaître, and M. Marteau. The "Société Française des Habi-"tations à bon Marché" has also contributed. Besides these, Mr. Locke Worthington has obtained, by the kindness of the architect, 8 sheets of plans, elevations, and sections of French Colonial Dwellings for Workmen, which were executed under the direction of M. Auguste Choisy [*Hon. Corr. Member*].

are valuable as examples of French planning and as records of current work, rather than as models for imitation in England, as to which, however, Mr. Worthington has expressed no opinion. As a rule, the planning of the block dwellings will be found to be dependent upon a large air-space on at least three sides, while those of the suburban dwellings are provided with a large amount of open space. It may be doubted if any of the plans of these latter, which vary greatly in capacity and in excellence, are in any way better than the ordinary six-room houses now being erected in the suburbs of most of our own large towns with accommodation for two families; while some of the arrangements are hardly to be commended, such as w.c.'s being ventilated into the common staircase without windows to the external air, shown on two at least of the plans, and of drains passing beneath buildings when they could easily have been placed outside. Other plans indicate some very useful and suggestive points, such as workshops for common or official use, separate w.c.'s, an ingenious, simple flushing tank which utilises overflow water, a mortuary for infectious interments, and many others.

The plans have been drawn by Mr. Worthington to an English scale, after personal inspection, more than once in several cases, and after consultation with officials. He gives the buildings as he found them, and the plans are evidently selected with judgment, to indicate a great many varieties of construction. The memoir is one that must have taken a vast amount of time and labour, and valuable enough to be brought before the Institute either as a sessional Paper, or in any other way that will place it as a permanent record in the hands of the members.

E. P. Loftus Brock.

REVIEWS. VI.

(11.)

THE CEYLON SURVEYS.

Archæological Survey of Ceylon. Report on the Kégalla District of the Province of Sabaragamuwa. By H. C. P. Bell, Esq., C.C.S. Archæological Commissioner.—Colombo, 1892.

This *Report** has been kindly forwarded by Mr. H. F. Tomalin, from the Ceylon Government to the Institute. It is a large document, occupying 139 pages, with a number of plates, and is full of very valuable matter. The district surveyed lies to the east of Colombo, between the higher hills in the centre of the island and the west coast; and it only includes a space of about forty miles from north to south, which is the greatest length of the ground on the map. Of this portion of the island the *Report* seems to give an exhaustive account of the archæological remains, including inscriptions; with historical notes and legends about each spot; the divisions of the district, with the towns and villages, are added, with details of their productions; the whole forming a complete guide to the region. This document, I am glad to say, has a glossary of the Singhalese words relating to archæology, and which is of great use to those who are not acquainted with the language. It is announced in the *Report* that 150 photographs have been issued with it, but these unfortunately have not been presented, which is to be regretted, as they would have been invaluable for details, and the better understanding of the architecture. If the whole of Ceylon is to be reported upon in a manner similar to this specimen, it will form a most comprehensive work of reference, and be of the utmost value to those who wish to study the archæology of the island.

Mr. Bell's last *Report* expressed doubts about the feasibility of carrying on the explorations at Anuradhapura with the limited means at his disposal; and this latest *Report* would seem to indicate that he has abandoned that task for the present, and given up exploring for that of surveying; this last word expressing the character of the work he has lately been engaged upon.

It could scarcely be expected in a survey of this kind, over ground that is well known, that any discoveries could have been made; or much that is new to us in architecture would be brought to light. Still, Mr. Bell touches upon a number of points that are of interest. He mentions more than once the influence of the architecture of Southern India on that of Ceylon. This becomes very evident from some of the illustrations in the *Report*. The wooden pillars at Pinnavala and Kumbukgama may be cited as good illustrations of this. The square form, it will be seen in both of these, alternates with the octagon; in the stone pillar at the Ambulugala Viháré, we have the

* In Mr. Bell's Preface to this Report the learned author of *The History of Indian and Eastern Architecture* is styled *Sir* James Fergusson, a dignity which Government forgot to confer on him while he lived. The error needs rectification, as the name may be hereafter confused with that of a former Governor of Bombay, who was Under Secretary of State for Foreign Affairs in the late Salisbury Administration, and afterwards Postmaster-General.

same arrangement. The ornamentation of these shows to a certain extent a character of its own, but much of it is also Hindu; strings of gems, which are so common in the ornamentation of Indian architecture, will be found exactly repeated in these columns. In the pillars of the Ganégoda Viháré, two of them have the peculiar cushion capital similar to those at Elephanta and other rock-cut temples; the ornamentation is different, and the incision through the cushion to the octagonal lines of the column is peculiar.

Cave temples are plentiful enough in Ceylon, but Mr. Bell confesses that they are not to compare with the far grander caves in India; generally they are partly natural recesses in the rock, which has been more or less excavated, and the space is divided into two or three chambers by cross walls. A coating of plaster is put on as a finish, which presents a wide surface for a profuse decoration in colour. In some cases, where gigantic boulders have been detached from the hill side, and tumbled down the one on the other, leaving a space between, this space, sometimes increased by cutting, is made into a temple. Many have a rude verandah or porch in front; and if the cave happens to be some distance up the hill side, flights of steps are cut to lead up to it; the more of these steps the better, for the greater the upward toil, the larger the amount of merit, or *Karma*, that has been acquired by the worshippers.

The structural shrines, such as the ordinary Kandyan village viháré or dewalé, are very simple and unpretending erections. These are mere wooden structures "in the form of a pigeon-house, "four square, one storey high and sometimes two."* Mr. Bell's description agrees with this account, which was written two centuries ago. He says that,—"Materials are always at hand, the un-"skilled labour of a few days suffices to complete "them." They are invariably rectangular,—"they rise from double beams laid transversely "upon short monolithic piers 3 feet to 6 feet "high." In the notice which has already appeared of the Anuradhapura *Reports* it was explained that the groups of stone pillars found there and in other places in Ceylon—of various heights, some as high as 8 feet, or even more at times—were the supports, like the piers just mentioned, on which viháres, temples, palaces, &c., were erected; and that this particular arrangement was not confined to Ceylon, but existed in former times in India. It is still practised in Burmah; and a friend who has been some years in Malacca tells me that the houses there are all raised on wooden posts, some feet above the ground. His explanation is that the object of this was sanitary—which explanation I accept—but at the same time I assume that there was a defensive purpose in it as well. Mr. Bell states that the use of stone for the piers is to avoid the ravages of white ants, as these insects can in a very short period completely eat through the centre of the timber, and reach at the same time the beams and flooring above, and undermine the whole building, which would be thus in danger of collapse. This only gives a reason for the change from wood to stone, but does not affect the question as to why the structures were at first raised above the ground on piers. I have dwelt at some length on this matter, and given what appears to be the real object it had in view, but at the same time I feel that it is worthy of still farther investigation, from its bearing, not only on the origin of architectural forms in Ceylon, but also in India, Burmah, &c.*

The discussion which lately took place in the Institute on the lighting of Greek temples suggests the quoting of the following from the *Report*. In these Ceylon temples, Mr. Bell says—"Windows "there are none, the only light admitted is "through the only doorway, usually narrow, ren-"dering the interior dark and stuffy. The dark-"ness is still more intensified in most dewálés, "where, however, the mystic nature of the reli-"gious rites and dread presence, typified by the "sacred insignia of the deity, offer some ex-"cuse."

The word "vihare" used in these *Reports* is usually, in Indian archæological works, written *Vihara*, and it is understood in the sense of monastery; but in Ceylon it seems to have a wider meaning. In the Glossary of the *Report* it appears as "Vehara—Elu form of *Vihara*, a "Buddhist temple or monastery; in this form "often applied to a dágaba." Under the heading of "Vihares," Mr. Bell writes—"Buddhist temples, "properly so called, consist of three separate "buildings besides a *pansala*: the *Viháré*, or "image-house; a *dágaba* or dome-shaped monu-"ment usually enshrining some sacred relics "of Buddhas or Buddhist saints; and a *bódi-*"*maluva*, a platform, with or without altars, sur-"rounding the *bó*-tree. The viháré and pansala "are naturally essential, and rarely indeed is the "sacred *bó* missing, be it only a sapling or shoot "recently planted on a cramped makeshift ma-"luva. Dágabas are less universal, but their "absence does not imply lesser antiquity of the "viháré, as Danagirigala, Lenagala, or Hakuru-"gala are witness." The word Dágaba here used is the Singhalese equivalent of "Tope," or "Stupa," the solid domed structures erected to enshrine relics of Buddha or holy persons, and they were also erected as monuments to mark spots where Buddha had visited or performed acts of merit.

* P. 17. Quoted by Mr. Bell from Knox's *Ceilon*, 1681, p. 72. Captain Robert Knox, of the Hon. East India Company, was made a prisoner in 1657, and kept in captivity in Ceylon about 20 years.—W. S.

* The massive columns, with brackets above them, supporting large heavy beams in such caves as those of Elephanta, and the Dumâr Lenâ at Ellora, are evidently copies of previously existing wooden forms. The only structures that I know of from which these could have been derived were the columns and beams just mentioned. The Buddhist viharas of India rested on these as substructures; and, even in spite of the white ants, this mode of construction must have continued for a lengthened period before it became lithic.—W. S.

There are no structural viharas now remaining in India, but from those in the rock-cut caves I think we may assume that they were temples as well as places for the Buddhist monks to dwell in. If we take one of the Vihara caves at Ajanta as an example—the cells for the monks surround a large hall; in the central cell opposite the entrance there is a seated figure of Buddha—as he was also a monk, I have always assumed that he was placed in this position to indicate that he belonged to the *sangha*, or congregation; but his presence would also imply a service by the monks in the hall. From this it may be assumed that the Vihara was a temple with the Buddhists of India as it is in Ceylon. Professor Beal, I find, also came to a similar conclusion.* The *stupa* was also an important feature of the Buddhist religious establishments of India, of which the Sanchi and Sarnath stupas still remain as evidence. In the rock-cut caves of Western India, the Chaitya Cave, with its Chaitya, or dagaba, was the same. From the sculptures we have ample evidence of the existence of the sacred bo-tree and of its worship; and there is still existing at Buddha Gaya the tree—or a successor of it—under which Buddha attained to supreme wisdom, or Buddhahood. These details will show that those features of Buddhism which took an architectural form did not differ much in India in the past from what is found in the present day in Ceylon.

Mr. Bell mentions the Perahera ceremony as a subject of sculptural decoration in more than one of the temples he describes. I saw the Perahera at Kandy on the occasion of the Prince of Wales's visit; and ever since I have been inclined to look upon it as only a variation of the Rath-Yatra, or Car-procession of the Brahminical system. The car festivals of ancient times were not limited to the worship of Jagannatha, and we know from Fah Hian that the Buddhists also had car processions among their festivals. It seems to me that in Ceylon the elephant simply takes the place of the car on which is placed the image, relic, or sacred object that has to be honoured. I put this as only a rough guess; perhaps Mr. Bell could throw some light on the subject, which would have an interest in many ways.

Among the illustrations is one of a bronze-gilt Buddha† at Danagirigala, which is full of characteristic details, and there is one which is of some architectural importance. In this bronze Buddha there is a very massive and ornamental ogee arched form above the sitting figure. Mr. Bell calls it a *makara-torana*. The word *makara* refers to a mythical fish monster which appears as the principal ornament on the arched form; and *torana* is the name given to the peculiar gateways still standing at the Sanchi Stupa;—the word appearing at times as "*toran*;"—but it applies more particularly to the upper portion of the gates. This arched form, Mr. Bell affirms, "has "its prototype in the chaitya window of the early "Buddhist cave temples of India," ‡ which means the arch, or circular form, in the roof of the Chaitya Hall. I feel inclined to agree with this suggestion of origin—but I hesitate. The cause of the hesitation may be thus explained. In the first place, the lintels of such torans as those at Sanchi, and also at Bharhut, have a curve upwards, which as yet, so far as I can remember, has not been explained; and I feel that it would be rash in our present state of knowledge to say that this curve was derived from the chaitya arch. Possibly it may have sprung from this source, for I know well that the chaitya circular roof is the origin of much in Indian architecture. Now, the curved lintel of the Sanchi toran has only to be raised a little higher, and have an ogee curve given to it, and it would become the *makara-torana* of Ceylon. The lintels of the *torana* at Bharhut extend outwards beyond their supports, and this extension is rounded at the end,—thus bearing, in this detail, a strong likeness to the *makara-torana*; but more than that, in this rounded form at Bharhut is represented a scaly animal with a large head and mouth, which Sir Alexander Cunningham describes as a "crocodile" *—it is represented in one of the plates,† where it can be compared with the *makara* of Ceylon in Mr. Bell's illustration;—the Bharhut example is less ornamental, but there can be no doubt of the identity of the two aquatic creatures. This leaves but little doubt that the one *torana* is derived from the other; and as the forms of Singhalese architecture are admitted to have been derived from those of India, we may assume for the present that the *toranas* of Sanchi and Bharhut represent the primitive type. If the two are the same, Mr. Bell's suggestion would imply that the lintels of the Indian *toranas* were derived from the circular form of the Buddhist chaitya roof.

If I might be allowed to make a suggestion of Origin in this,—though it is one that would require further consideration,—it would be that the *torana* has been derived, not exactly from the Chaitya Arch, but from the framework in the arch at the front end of the Chaitya Hall. This can be seen in drawings of the Karli Cave, and also in the Lomas Rishi Cave; but perhaps the most striking example is that of a bas-relief sculptured on the post of a Buddhist-railing at Buddha Gaya.‡ In this we see flat arches approaching somewhat to the form of the curved lintels of the Sanchi Gates, and at the same time it represents members between them, which might have been easily transformed to the perpendicular supports when the arched forms were changed into the character of lintels. If this should turn out to be the correct solution, Mr. Bell's words can scarcely

* See his *Buddhist Records of the Western World*. Vol. i. p. 74, *note*.—W. S.

† See illustration opposite. ‡ Page 21.

* *The Stupa of Bharhut*, p. 6. † *Ibid*. Pl. VI.

‡ See Fergusson's *Indian and Eastern Architecture*, p. 111, Fig. 47. See also *The Cave Temples of Western India*, Pls. XCVII., X., and VIII. The first gives representations of doors in a Vihara at Bhâjâ, and the framework above them approaches so near to the form and general appearance of the lintels of the Sanchi and Bharhut Stupas, that it becomes very strong evidence in favour of the suggestion that this is the source of origin.—W. S.

See opposite page.

Scale of 2 inches to a foot.

BRONZE GILT BUDDHA, AT DANAGIRIGALA, CEYLON.
From Mr. Bell's Report.

be rejected as wrong; but we had better wait for further investigation before assuming that this suggestion is a certainty. I cannot close without alluding to the *Bhérunda*, or double-headed eagle, on the flag of the Three Korales, one of the divisions of the Kegalla district. It is a spread eagle, and has much the appearance of having been copied from the imperial insignia of Russia or Austria. The double-headed eagle has now been traced back to the Hittites, from one being found sculptured on the rock at Eyuk near Boghaz Keui, in Asia Minor; so it is an ancient device, and one would like to know whether it is old, or only a modern invention in Ceylon. The significance that is attached by the Singhalese to the two heads would also be worth knowing.

WILLIAM SIMPSON.

(12.)

STUDIES FROM THE MUSEUMS.*

Wood Carvings from the South Kensington Museum. Folio IV.—Domestic Furniture. Edited by Eleanor Rowe. [*R. Sutton & Co.*, 11 *Ludgate Hill, E.C.*]

The articles selected for photographic reproduction are tables, chairs, cabinets, and frames. They belong for the most part to the sixteenth century, and were manufactured in France and Italy. The photographs themselves are excellent, and, considering their size and number, the price of the Folio is certainly very moderate.

The introduction states that "the letterpress "deals purely with the technical side of the "question, without attempting an analysis of the "different styles or criticising the relative merits "of the objects selected," and that "the main "point aimed at has been to assist the student in "his study of the subject by classifying the various "methods of carving." It is quite possible that for the above-named purpose the selection made may be a judicious one, but as regards good and appropriate design, artistic merit, and freedom from vulgarity, it leaves much to be desired. A few words by way of caution to those who may use (and possibly copy) the designs would not have been out of place.

Take Plate 68, called "a Mirror." Here one would think that the incoherence and unreasonableness of the various ornaments stuck on round the frame should have been pointed out. What, for instance, is the meaning of the hideous grinning head above the middle panel? Why are the two heads at the side looking so angry and the two just below them so amiable? What is the cherub below the panel doing there? and why are the masks on either side making faces at him? If there *is* any meaning in all these faces and festoons it should be possible to make that meaning out; and if there is none, the thing is a mere senseless jumble.

Compare this with the mirror frame in Plate 72. Here, it is true, there is no very particular merit in the design, but it is quiet and unobtrusive, while the ornament is graceful and refined, and is properly applied.

Plate 60 shows a carved console table. There is a sort of coarse vigour about the composition, but the treatment of some of the details is conspicuously bad: for instance, the horrible toes to the lions' paws. To the bracket feet on which the table rests, human heads are applied by way of ornament; they touch the floor, and of course are sure to get kicked; a more unsuitable place for such features it would be difficult to imagine; the projection of the feet beyond the line of the table itself is a mere practical mistake.

Plates 61 and 62 give another table, apparently of Italian workmanship. The columns which form the legs are charmingly treated with vine foliage twining around them in low relief. The commonplace pendants under the angles of the slab, and the queerly shaped balusters underneath, are not very happy.

Plates 63-67 illustrate a carved walnut-wood cabinet of Italian workmanship and sixteenth-century date. This very beautiful piece of furniture is of an admirably simple and appropriate design. The various compartments into which the cabinet is divided are clearly marked by the structural treatment, the surfaces of the framing and the panels being carved with delicate patterns of foliage in low relief. There is a total absence of anything like straining after effect, and also of the somewhat vulgar "boldness" which disfigures others of the examples given.

Plate 69 is a Venetian chair. The outline is effective, and some of the carved patterns pretty and well applied; but the thing is more of a decorative feature than a chair; it is hard to imagine anybody taking it seriously and trying to sit upon it.

Picture-frames are shown in Plates 70 and 71. In the latter the border is formed of bits of acanthus foliage rather ingeniously twisted about, and bunches of fruit introduced in a haphazard sort of way. The frame is an effective piece of light and shade, but there are very few pictures that it would not kill.

B. INGELOW.

(13.)

JACOB BOBART.

A Biographical Sketch of Jacob Bobart of Oxford, together with an account of his two sons, Jacob and Tilleman. By Henry Tilleman Bobart, of Leicester [1884; *for private circulation only*].

The acquisition of this pamphlet is another result of the insertion in *The R.I.B.A. Journal* of the Vanbrugh and Hawksmoor letters.* Although not an architect, Jacob Bobart's second son, Tilleman (born 4th December 1662), became connected with the profession, by his appointment, in 1708, by Lord Godolphin, to the office of Comptroller of the Works at Blenheim in the place of William Boulter, deceased. He planted the elm-trees in the park in the same order that the British troops fought against the French at

* See Vol. VII. p. 391 for a review of previous portions of this work.

* These letters appeared under the heading of "The Building of Blenheim" in Vol. VI. pp. 12, 41, 60, and 80.

the battle of Blenheim. He countersigned, in conjunction with Mr. Henry Joynes, Clerk of the Works, and the architect, Sir John Vanbrugh, the accounts in the concluding months of 1709; he was also included in the action brought by the executors against the architect and others. In the British Museum are seven autograph letters respecting the accounts, and Mr. H. T. Bobart has seven others of similar purport, besides other documents. He was also employed in the grounds at Hampton Court, and is supposed to have died soon after 1724.—WYATT PAPWORTH.

(14.)

ARCHÆOLOGY AT OXFORD.

Archæologia Oxoniensis. Parts I. & II. With plates. 8o. Oxford & Lond. 1892. [116, *High Street, Oxford, and Henry Frowde, Amen Corner, E.C.*]

This new publication is evidence of the increased interest taken by the Oxford of to-day in archæological studies. There is no department of Oxford life in which so much new vigour has been manifested of late years than the department of museums; and in the near future the University city promises to be supplied with historical and archæological collections, well housed and catalogued, that will astonish those who remember the old Ashmolean of twenty years ago. *Archæologia Oxoniensis* is destined notably to further this movement. One of the papers in Part II. is a plea from the pen of Mr. Romilly Allen for an addition to these collections in the form of a Museum of Casts, &c., illustrative of early art and architecture in Great Britain from about 450 to 1200 A.D. Such a collection would bring together, for purposes of comparison, material now widely distributed in provincial museums, and in churches such as at Jarrow-on-Tyne, and would greatly help forward the study of pre-Norman work now enthusiastically pursued in so many quarters. A welcome Paper in Part I., by Mr. Park Harrison, deals with the supposed pre-Norman elements in Oxford Cathedral, and many readers will be glad to take it in their hands when next they have an opportunity of visiting that most interesting building. Mr. Harrison is a little unfortunate in his use of the word "Byzantine." "It is not "generally known," he writes, "that the revival "and improvement of church architecture at the "close of the tenth century was, in part, due to "Eastern influence, much as, for a period of "about a hundred years, was the case on the "introduction of Byzantine architecture into the "West by Charlemagne." This last statement is a very antiquated one, and is quite below the present standard of knowledge; while I doubt if the first part of the sentence has any more historical foundation. What trace of Eastern influence can we find, for example, in the architecture of the kingdom of Saxony, which led the van of European progress in the tenth and early eleventh centuries? The buildings of the Ottos were no more Byzantine than those of Charles the Great. The Paper by Mr. Oman on Ecclesiastical Boundaries in Mediæval England is a slight though valuable contribution to a subject of the highest interest and importance. More can be learnt about the social and ecclesiastical history which underlies the history of architecture by a study of comparative maps than by almost any other method. Some contributions of more purely local interest complete these first numbers of this very promising publication.

G. BALDWIN BROWN.

(15.)

TWO AMERICAN PAMPHLETS.

Comparative Architecture. By Barr Ferree. A Paper read before the American Institute of Architects. [Reprint from the Journal of the Institute. 8o. New York, 1892.]

Christian Thought in Architecture. By Barr Ferree. A Paper read before the American Society of Church History. [Reprint from the Proceedings of the Society. 8o. New York, 1892.]

"Christian Architecture" and "Comparative "Architecture," by Barr Ferree, are two Papers, the one read before the American Society of Church History, the other before the American Institute of Architects. They are pleasantly written from the point of view rather of the general student than of the technical critic of architecture. The former is a little Ruskinian, as when the author writes appreciatively of mediæval architecture as connected with religious ideas, but finds the Renaissance "Pagan." The treatment of classical religion as expressed in classical architecture is not satisfactory, and the writer might with advantage have re-read the brilliant pages in Freeman's *History of Architecture* which deal with the Hellenic and Christian ideals as embodied in architectural monuments. It is hardly correct to say that the Romans were "more "irreligious than the Greeks," for after their own matter-of-fact way they were about the most religious people of antiquity.

"Comparative Architecture" is a more valuable contribution, and is a plea for the substitution of a more philosophical principle of grouping the facts of architectural history than merely by countries and periods. The weakness of this system is seen, for example, in the *History* of Fergusson, whose adoption of the principle of grouping by localities led him to speak of "French "architecture" and "Belgian architecture" at periods when France and Belgium, in the modern sense, had not yet come into existence. For a merely historical and descriptive treatment, the author would substitute the "comparative treat-"ment," which he thus describes:—"Comparative "architecture . . . takes the substance of the art, "its materials, the climate in which characteristic "styles have developed, the national or govern-"mental conditions under which they have "flourished, the ethnographic relations of the "people, the geological peculiarities of architec-"tural districts, the distinctive social and mental "qualities; notes the influence of the allied arts, "of religion, of temperature, of use, of civilisation, "of constructive ability, of methods, and the other

"causes which have operated in one way or "another, to a greater or less extent, in the pro- "duction of architecture in all times and in all "ages." This sentence, if somewhat awkwardly expressed, contains a valuable truth.

G. Baldwin Brown.

BOOKS RECEIVED.

Autotype Company and Sotheran & Co. Famous Monuments of Central India. Illustrated by a series of eighty-nine photographs in permanent autotype. Prepared by direction of Sir Lepel Griffin, K.C.S.I. With descriptive letterpress. ob. fo. Lond. 1886. From the Secretary of State in Council of India.

Clowes & Sons. A Collection of the Statutes regulating Building within the Administrative County of London, &c. By W. R. Griffiths. 8o. Lond. 1893. From the publishers.

Crosby Lockwood & Son. Light: an Introduction to the Science of the Optics, designed for the use of Students of Architecture, Engineering, and other Applied Sciences. By E. Wyndham Tarn, M.A. With diagrams. 8o. Lond. 1890. From the author.

The Construction of Roofs of Wood and Iron, deduced chiefly from the works of Robison, Tredgold, and Humber. By E. Wyndham Tarn, M.A. With numerous illustrations. Second edition. 8o. Lond. 1883. From the author.

The Mechanics of Architecture: a treatise on Applied Mechanics especially adapted to the use of architects. By E. Wyndham Tarn, M.A. With 125 diagrams. 8o. Lond. 1892. From the author.

Griggs (W.). The Journal of Indian Art and Industry. No. 41. fo. Lond. 1893. From the publisher.

Kegan Paul, Trench, Trubner & Co. Art and Handicraft. By John D. Sedding. 8o. Lond. 1893. From the publishers.

Librairie Hachette et Cie. (Paris). L'Acropole de Suse d'après les fouilles exécutées en 1881, 1885, 1886, sous les auspices du Musée du Louvre. By Marcel Dieulafoy. fo. Paris, 1893. From the author.

Longmans, Green & Co. (Lond.) and Reid (Andrew) (Newcastle). The Hand-book to the Roman Wall: a guide to tourists traversing the Barrier of the Lower Isthmus. By J. Collingwood Bruce, F.S.A. 8o. Lond. and Newcastle, 1885. From the publishers.

Murray (J.). Architecture: a profession or an art? Edited by R. Norman Shaw, R.A., and T. G. Jackson, A.R.A. 8o. Lond. 1892. From Wm. Woodward [*A.*].

Nutt (David). French Art: classic and contemporary Painting and Sculpture. By W. C. Brownell. 8o. Lond. 1892. From the publisher.

Ongania (Rome and Venice). Arte Italiana decorativa e industriale. 12 parts. fo. Rome and Venice. 1891. From the publisher, per Mr. Cedric Chivers, of Bath.

Osgood, McIlvaine & Co. The Desire of Beauty, being indications for æsthetic culture. By Theodore Child. 8o. Lond. 1892. From the publishers.

Stevens & Sons. A Digest of the Law of Easements. By L. C. Innes. Fourth edition. 8o. Lond. 1893. From the publishers.

Sutton & Co. Studies from the Museums. Wood carvings. Folio iv. Edited by Eleanor Rowe. fo. Lond. 1892. From the publishers.

Tipografia dell' Unione Cooperativa Editrice (Rome). Il Leone di San Marco. By Giacomo Boni [*Hon. Corr. Member*]. fo. Rome, 1892. From the author.

Tipografia Pagnoni (Milan). Reminiscenze di Storia ed Arte nel Suburbio e nella Città di Milano. Part 3. By Carlo Fumagalli, Diego Sant' Ambrogio and Luca Beltrami. 4o. Milan, 1892. From Luca Beltrami [*Hon. Corr. Member*], joint author.

OBITUARY.

Lord Northbourne, *Hon. Fellow.* 1816–1893.

Walter Charles James, Lord Northbourne, who died on the 4th inst. at the age of 77, had been an Honorary Fellow of the Institute from the year 1865. As Sir Walter C. James, second baronet, he succeeded to the baronetcy in 1859. According to *The Times*, he was educated at Westminster School and Oxford University, where he took the degree of B.A. in 1836 and M.A. in 1840. In 1837 he was returned as one of the two Conservative members for Hull, and was re-elected in 1841, but retired in 1847, and did not again enter the House of Commons. He was also a trustee of the National Gallery. Created a peer in 1884, he went to the House of Lords as Baron Northbourne, of Betteshanger, in Kent.

Joseph Peacock, *Fellow.* 1821–1893.

Mr. Joseph Peacock, who died on the 17th of January, aged 72, had been a Fellow of the Institute since 1859—having been elected an Associate in 1850—and at one time took an active part in its work. After serving his articles at Worthing he was engaged upon the Tithe Survey, and also surveyed for different railway lines. He then practised extensively in London and the provinces as an architect. At one time he was much engaged in arbitration cases, and became surveyor to many large estates in and around London. Among some of his architectural works may be mentioned the churches of St. Jude, Gray's Inn Road; St. Stephen, South Kensington; St. Simon, Chelsea; St. James, Derby; St. Thomas, Derby; St. Benet and All Saints, Kentish Town; and Holy Cross, St. Pancras. He was engaged on the restoration of many others. He also designed and carried out numerous Church schools, besides vicarage-houses and other buildings, including the Bloomsbury Dispensary and the large group of buildings known as the "Parish Institute" for St. George's, Hanover Square, for the late Canon Capel-Cure. His latest work, now nearly completed, was the Mission-hall and Parish Institute for St. George's, Battersea. He was at one time intimately connected with the various committees of St. George's, Bloomsbury, in which parish he had lived and practised for upwards of forty years.

Walter Dewes.

London: Printed by Spottiswoode & Co., New-street Square; and published by The Royal Institute of British Architects, at No. 9, Conduit Street, in the Parish of St. George, Hanover Square, both in the County of Middlesex, 16 Feb. 1893.

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SESSIONAL NOTES.

A Judge's and other Charges.

The legal soul *in excelsis* is not always an edifying spectacle; and when "fired" it affords a warning to gods and men. If newspaper reports can be relied on, the Lord Chief Justice of England has recently declared from the Bench that he "would not allow the Royal Institute of British Architects "to dictate to juries what sum was to be paid for work not done,"—dictation which the Institute does not attempt by word or thought, or even wish. The Institute publishes, in common with other Papers, suggestive or permissive, relating to conditions of contract, the conduct of competitions, the conservation of ancient buildings, and the terms of apprenticeship, a Schedule, or Paper, of Professional Practice and Charges. This Schedule contains a series of clauses (not "Rules") representing generally the custom of the profession of architects, not in this country alone, but in France and other continental countries,—not in the United Kingdom alone, but in many provinces of the Empire from Australia to British Columbia. The clauses of this Schedule so far as they relate to charges are not binding on members of the Institute, as they do not form any part of the obligations which membership involves; they are used, or they may be used, as a basis of agreement, and when thus accepted, as a scale of remuneration. The Institute does not say what Lord Chief Justice Coleridge is alleged to have declared it says, evidently from insufficient knowledge. The Institute does not say to the gentleman who wishes to build a house at a cost of £50,000, and whose architect prepares plans and obtains tenders for a house costing £150,000, that if he decline to build the house he must pay the architect a commission on the latter amount. Such, to use the words stated to have been used by Lord Coleridge, would be "an unjustifiable attempt on the part of a body of "men for their own advantage and to increase their own emolument;" but the Institute does not make the attempt, and, that being so, it was quite superfluous for any one, much less a Judge in high place, to confess that "his legal soul fired at it." It is to be regretted, moreover, that barristers, in a futile attempt to help their clients, should persist in calling the clauses of the Institute Schedule "Rules," when it has been and is repeatedly stated that they are not Rules, and while the Schedule itself has neither heading nor superscription to suggest even that they are Rules. By so doing, the Bar mislead the Bench, and Judges sometimes so commit themselves as to jeopardise the sentiment of respect and deference for authority which among Englishmen is innate, and intuitive from their earliest years. The great Chancellor of Elizabeth and James knew this, as he knew most things that are dreamt of in man's

philosophy. In his essay on "Great Place" he wrote—Be not too positive and peremptory . . . . rather assume thy right in silence, and de facto, than voice it with claims and challenges. Again, in the essay entitled "Of Judicature," when Bacon may have had in his eye a man of the time—perhaps a Chief Justice—he admonished Judges to beware of hard constructions and strained inferences. An overspeaking Judge, he said, is no well-tuned cymbal.

M. Émile Trélat.

The Address to Students delivered by the learned Director of the École Spéciale d'Architecture of Paris, at the opening meeting of the current Session, has been printed in pamphlet form, and received in the Library. It contains a paragraph which has a certain value at the present time, and may be of increased interest hereafter when the history of the educational contest in this and other countries comes to be told. Says M. Émile Trélat, towards the end of his discourse:—You all know, Gentlemen, with what care the École Spéciale has included Hygiene in its teaching. In spite of that example, now of many years' existence, architects are nowhere taught Hygiene except here, which is most unfortunate. As for us, we hold to it absolutely; we know that in our towns so full of life and so deprived of space, an architect cannot fulfil his functions unless he is the intelligent and experienced interpreter of the hygienist. If he does otherwise he becomes an accomplice in the high death-rate which overburdens many a wretched locality. We have forced ourselves, above all during the last ten years, to make of you, Gentlemen, architects who shall know the given quantities of health and the imperious rules which must be followed in order to protect it.—M. Trélat's words, though spoilt by literal translation, cannot fail to obtain a sympathetic reception from thoughtful members of the architectural profession in this country.

Sessional Papers.

It has probably not escaped the recollection of members that the President, in his Address delivered at the opening Meeting of the current session, strongly urged [p. 27 *ante*] the desirability of amalgamating the "*Proceedings*" and the "*Transactions*" of the Institute, which, during the last eight years at least, have consisted annually of two quarto volumes of considerable bulk. The President would merge, so to put it, the annual volume of *Transactions* into the fortnightly *Journal*, and thereby economise some £500 a year. To do this, the Paper read on a Monday evening would have to be published with its illustrations and appendices (if any) on the subsequent Thursday morning, and issued on that day; and by so doing members would have before them the full illustrated Paper and the full discussion of it at one and the same time, though obviously not in so finished a condition as at present, when such Paper and its illustrations only appear after an interval of months. To effect the suggested change, desirable from a practical as well as an economical point of view, the manuscript of a Sessional Paper would have to be in the possession of the Institute Officers a month at least before the date on which it was proposed to read it; and thereby opportunity would be afforded to the Council of inspecting it prior to delivery by its author, which is not the case at present. The Council would then be enabled to formally accept or reject it. Some of the Papers read before the Institute during the last two years have not been presented by their authors until after the reading, and others have been received at the close of the week preceding the Monday Meeting at which they were to be read. Not only might this defect be advantageously remedied by adopting the President's suggestion, but the property of the Institute in its Sessional Papers, as declared under By-law 72, would also be better protected than it is.

The Benevolent Society.

The Annual General Meeting of the Architects' Benevolent Society will be held at 5 p.m. on Wednesday, the 8th inst., in the rooms of the Institute. Mr. J. Macvicar Anderson, the President of the Society, will take the Chair. Members of the Institute are invited to attend the Meeting, at which the Annual Report and Balance Sheet will be submitted.

PROCEEDINGS.

Monday, 27th February 1893.

Ninth General Meeting (Ordinary).

Mr. J. Macvicar Anderson, *President*, in the Chair.]

This was the first meeting this Session held under the auspices of the Art Standing Committee of the Institute, the subject for discussion having been chosen, and the Papers upon it obtained, by the Standing Committee.

THREE PAPERS ON TERRA COTTA.

1. *Introductory.*

By E. Ingress Bell [*A.*]

Mr. President and Gentlemen,—

Although but poorly equipped for such a task, I have consented, at the request of my colleagues, to endeavour to present to you this evening the case for the employment of terra cotta. And I may as well say, at the outset, that I am disposed to advocate its use on these broad general grounds —that as it is, notwithstanding a few ancient examples and some recent experiments, practically a *new* material in our hands, we may reasonably hope that its careful and intelligent treatment will lead to *new* developments in architectural design.

Architects, in all ages of the world, have addressed themselves to the solution of architectural problems by the aid of brick, stone, and marble; and so successful have they been in relating design to material that their more perfect works are accepted as standards of excellence, to which we may indeed conform, but which we cannot hope to surpass. They appear to have anticipated every combination of appropriate and agreeable form, and to have exhausted every source of artistic effect. So long as we work with the materials with which *they* worked, we have no choice but to follow in the groove laid down for us. The problems of to-day are substantially those of old; the needs being the same and the materials the same, the proper treatment is perforce similar.

But the best of things, too oft repeated, fail at last of their effect. We need the stimulus of change in architectural as in other matters; and for some change in the stereotyped and too familiar forms, some relief from the tyranny of precedents, however excellent, there has within my remembrance gone up many a cry.

In what direction may this desired relief be sought?

The elementary forms in architectural composition are scarcely susceptible of any material addition. An opening must be spanned by a lintel or by an arch, supported by a pier or by a column. An area must be covered by a flat or a pitched roof, by a dome or combination of domes; and so on. Opportunities for varied treatment are confined to *detail*. It is *detail* alone which distinguishes the Roman arch from the Romanesque; it is *detail* which, in the main, differentiates the historic styles, and, broadly speaking, supplies expression in architecture.

Detail is excellent in the degree in which it conforms to the qualities of the material employed.

Do the peculiar properties of terra cotta, suitably treated, promise new varieties of *detail*, new possibilities of architectural expression? I hope in the end to elicit an affirmative reply.

But first I must clear the ground a little by touching lightly on one or two objections to the use of terra cotta which deserve attention.

It is sometimes urged in disparagement of terra cotta that it is a *cast* material. It may be, or it may not. But suppose it is. There was, I know, a time when such a charge would have been conclusive. To speak of anything as *cast* was to condemn it. But even cast iron is again coming into repute; and if cast iron, why not cast clay? *Provided always* that the design is duly related to the material.

We have gone on for centuries producing by patient human toil miles of frets, countless dentils, and egg and tongue, dog-tooth, and ball flower, each item the exact counterpart of its neighbour; and the practice has been generally approved, or, at the worst, condoned. If the result is innocent, or even commendable, where is the evil of obtaining it by a short cut?

The position taken up by a certain school, with whom I am myself in sympathy, that each item in an ornamental series should be differentiated by evidence of healthy human labour—within certain limits free—is an intelligible one.

The practice of setting human labour, healthy or otherwise, but certainly not free, to produce multitudes of ornamental features all exactly alike has an immemorial sanction.

But the contention of those who allow the identity, and yet object to the cast, is one which I cannot appreciate.

The use of terra cotta, however, is by no means limited to cast work. That is the least of its recommendations. Mouldings can be run, as the plasterer's mouldings are, and with equal freedom; or the clay can be modelled directly by the artist into any form which his fancy may dictate; or all these methods may be combined. The field, or background, may be cast—and I can see no reason why it should not be—the moulded lines and general divisions of the work may be run. And the artist's hand may easily and swiftly elaborate and embellish the forms thus mechanically supplied.

It is this last quality which gives terra cotta the chief claim on our consideration.

Another objection is that the clay shrinks and warps in the kiln, and that the work is consequently untrue. This simply points to an abstention from those traditional types which depend for their beauty, in a great measure, on the utmost refinement and subtilty of line and contour. It would be folly to attempt to catch the peculiar charms of Athenian art in so wayward a material as terra cotta. If these beautiful types are to be still further multiplied, to the further weakening of their effect, it must be in the typical materials. But there are other and more picturesque forms of art where this peculiarity of the material we

are discussing is even helpful, and, indeed, goes far to mitigate the hardness inseparable from work in which casting plays a part. The lines, instead of being rigid and formal, as though ruled in by a machine, have a free, sketchy look, as though put in by hand; and the surfaces, not lying in an absolutely perfect plane, diversify agreeably the general effect of light and shade.

A more formidable charge is that terra cotta does not weather—that is to say, it does not encourage that lichenous growth which is so grateful when seen upon brick and stone. The charge is not wholly true. In course of time terra cotta *does* take something of the same natural tinting. But it assumes the parti-coloured vesture very slowly. The question is mainly one of texture. And the texture of terra cotta varies from that of stone to that almost of porcelain. If we are content with a granular surface, such as stone, we may have something of the same effect. But even stone buildings in *towns* do not weather in the above sense, and town buildings are to country buildings, I suppose, as 100 to 1. The atmosphere of our towns—for we will not ascribe this dirty work to Nature—finishes our work for us in black and white; putting on the shades without the least regard to form—one vertical half of a classic column being sometimes white, whilst the other half is black. So capricious are these washes and markings that, to the lay mind, it is often matter of surprise that architects take so much pains with the niceties of their work, knowing well that all distinctions will sooner or later be effaced or rendered grotesque. And this brings us to the practical question—Shall the façades of our buildings be daubed over fantastically with soot and water, under pretence of "weathering," or shall they be composed of a material which every shower will cleanse?

An objection, of which I recognise the force, is that the too facile production of ornamental features may lead to their indiscriminate and reckless use, and that we may suffer from a plethora of poor ornament when simple chamfers and restful surfaces would be better for all concerned. I set out, as you will remember, with advocating the *careful* and *intelligent* use of terra cotta. All materials are open to abuse—and we all know brick and stone have not escaped! It is assumed all along that the designer is a man of cultivated taste. If he has not learnt the necessity of self-restraint, and the value of breadth and contrast, he will not design anything worth seeing in any material whatever.

To come, now, to the root of the matter. How shall we best develop the special attributes of terra cotta for purposes of architectural design?

It is necessary before all things that we divest our minds, so far as possible, of the habit of thinking in stone. We must not look upon terra cotta as a sort of artificial stone, as a means of doing easily and cheaply in one material what is done with difficulty and cost in the other. The two materials demand entirely different treatment.

If we look into the sources of expression in ancient and mediæval art we see one characteristic pervading the whole. Labour is applied in the most rational and least wasteful manner consistent with the qualities of the material. The roughly-squared block is reduced to planes, and *below these* the mouldings are sunk: sometimes the basis is rectangular, sometimes it is a broad splay. In all, the light and shade are obtained by *deepening down* from the surface; hollow being added to moulding, and moulding to hollow, until the desired richness of effect is produced. Elaborate and complex work is, of necessity, costly; and work which cannot be costly must be plain.

One invariable universal system of *intaglio* governs all architectural expression in the past history of art.

Now, the first thing which an architect dealing with terra cotta realises is that the above methods are inapplicable, and the above restrictions are almost entirely removed. He is practically independent of what the surveyors call "labours." The clay does *not* reach the workman in squared blocks, but in amorphous lumps, which will readily take any desired form, and one form as easily as another.

Stone and marble are costly to win and to transport; they are more or less refractory under the chisel, and they cannot be elaborated beyond a certain point without impairing their durability.

With the tempered clay—the *good*-tempered clay—all this is changed. It is cheaply won, it is easy and pleasant to manipulate, the surplus can be re-used so there is no waste, and it makes little difference in point of cost whether the designer confines himself to the simple, unsophisticated chamfer, or indulges in series upon series of the most elaborate mouldings. There is no limit to the delicacy and complexity of detail obtainable; and, in theory at least—and practice is fast overtaking theory—it is hardened by fire to imperishability.

In colour it ranges from a leaden grey, through dull reds, to golden brown and buff—a chord sombre enough to suit our Northern tastes, and yet full enough to meet all reasonable wants.

How can these several qualities be turned to the best account?

It is impossible to forecast the direction which the study of terra cotta, as a medium of architectural expression, will ultimately take. The yielding clay is fortunately open to receive the impress of many minds. It may be that some development of Romanesque—a style which the American architects have found elastic enough to cover many modern requirements—will provide the most suitable basis. Or it may be that a free and picturesque handling of our Early Renaissance, before it quite broke with the Gothic spirit, will supply the desired *motif*. Or these various treatments may be severally suited to various ends. In any case, the limited size of the blocks procurable seems to point to some style in harmony with our native art, which is essentially an architecture of small elements.

Is it too much to hope for the resuscitation and evolution of our native and indigenous architec-

ture, from the point in its career which gave the first hint of decadence, when the importation of a foreign influence checked, convulsed, and then destroyed it?

The course of art in England may be likened to a vast parabola. It is, perhaps, impossible to mark with precision the highest point in the curve; but it *is* possible to mark off a segment, and say here it was still in the ascendant, and here it was on the decline. And such a segment, it appears to me, is covered by the reign of Henry VII.

The art of that period was tending towards a system of design perfectly suited to the material under discussion. The constructive scheme, developed through the preceding centuries, had resulted in the scientific concentration of the active forces in the fabric upon points of resistance which were connected by purely ornamental screens. The *details* were minutely subdivided and enriched, as in the exquisite fan-tracery and shrine work—features which would be easily rendered in so plastic a material as clay—and the utmost possible attenuation of the points of support is, almost always, a ruling condition in modern town buildings.

Further, the economic rule to which I have before referred as determining the effect of all *detail* was relaxed, and indeed reversed. The mouldings and enrichments were *not* uniformly kept within the surface of enclosing margins, or sunk below a common plane. The pateræ no longer nestled in shady hollows, but advanced into full light in front of the contours of the mouldings they adorned. The blank tracery, the wall panelling, the heraldry and heraldic badges, and the ornamental features generally, assumed a new *rôle*. It was the *field* upon which they were displayed that was sunk. The result was a kind of architectural *impasto*, wasteful and irrational in stone, but the absolutely proper treatment for clay. If I am correct in this view, Pugin's well-known aphorism must be modified. It is, no doubt, always right to ornament construction; but it is not always wrong to construct ornament. Can we take up, at its best point, this last distinctive phase of our national architecture; and in a more congenial material restore to it the life and thought which inspired its highest efforts; carrying it forward, as its authors might have done, with the command of our modern aids?

It is conceivable that by persevering trial a form of architecture may be evolved in which, under shelter, protection, and support of the leading forms which should mark the constructive scheme, subordinate and independent spaces, on a grand scale, may be reserved for artistic treatment in relief—spaces which should be to the modeller what the canvas is to the painter, and upon which he should be free to expatiate subject to the architect's general control; the wall panelling and traceries giving up their formalism, their wearying iteration, and repetition of meaningless forms, and yielding to direct and individual treatment, in which all graceful lines, all pleasant variations of surface, and all suitable natural forms should find a place; the whole frankly built up, and projected from the plane prepared for its display—in effect, a sort of *gesso* in a far more pliant and accommodating medium. For, as a vehicle for the expression of artistic fancy, there is nothing which can for a moment compete with the kindly clay—so responsive to the artist's lightest touch, so suave and facile in the working, and so tenacious and enduring in its grasp of the life with which his skill endows it.

I do not for a moment suggest that we can hope to arrive at a nobler *form* of architecture than that which our ancestors have bequeathed to us. That is not the question. It is rather this—Have the possibilities of the older art, when confined to the traditional materials, been played out, and does the *new* material placed in our hands afford an opportunity for new and legitimate forms of expression?

I have sketched in loose and faltering lines the direction in which it appears to me such a result may be sought. If the ideal I have endeavoured to suggest is worthy of serious pursuit, it is to the younger members of the profession that we must look for its realisation; to those whose freedom in the arts of design has not been hampered by the prejudices and conventions which cramped our youth, and whose artistic education has been so much more liberal, systematic, and complete.

E. Ingress Bell.

2. *Recent Developments in its Manufacture.*

By Mr. S. H. Leech.

Mr. President and Gentlemen,—

I take the invitation to read before this Institute a short Paper on the subject of terra cotta as a great compliment; and as I believe I have been asked to offer a few remarks as one practically connected with the manufacture of terra cotta, I will at once address myself to practical matters.

I propose to briefly review the materials from which terra cotta is made, and the methods of its production, dealing chiefly with those matters which may suggest to the architect what class of the material it is desirable to employ under certain conditions.

First, to deal with the clay. Although one of the commonest elements in nature, there is an immense variety of this simple material. The kinds which may be made use of range from the purely plastic clays of Dorsetshire and Devonshire, through the superficial and Wealdean deposits, to the refractory fireclays of the Coal-measures. For the making of good terra cotta it is essential that the clay shall be sufficiently plastic to mould well, and yet solid enough to retain its shape when removed from the mould to dry. Very few, if any, clays in their natural state possess this nice balance of qualities. The more refractory clays, which are generally found as hard rocky marls or shales, cannot be brought to much more than a granular substance, having just cohesion enough to hold together when moulded and dried. They are unsuitable for the production of delicate mouldings and enrichments, and are unfavourable to any great freedom in ornament, because such

methods as that of adding enrichment, by after-modelling or attaching, cannot be adopted. The ornament must be moulded with the feature of which it is a part; and, as this necessitates elaborate piece-moulding, it becomes expensive, or otherwise limits the ornament to slight projections. At the same time, this granular structure of the clay is very favourable to equal and rapid drying, and such clays produce the straightest mouldings and truest surfaces. They are also favourable to the production of large pieces where such cannot be avoided.

The plastic clays, on the other hand, are better suited to the production of sharp, fine mouldings and delicate enrichments, and in their use the modeller has the greatest freedom afforded him. They are prone, however, to crack and twist in drying, and are therefore unsuitable for the making of large pieces.

It will be obvious, therefore, that, whilst each in its own way may make excellent terra cotta, all clays are not alike suitable for the execution of a given design.

The colours produced by different clays are the result of the development of the iron contained in the clay by burning. The proportion of iron contained varies greatly, but the amount of iron present is not of itself the sole cause of difference in colour. Much depends upon the presence of other substances, as, for instance, lime, which act as deterrents upon the full development of the colour. Terra cotta is mostly burnt in what are called open kilns, types of which are shown as A and B on diagram No. 1. In these the flame passes through the kiln, and plays direct upon the ware, and this direct play of the flame, carrying with it abundant supplies of oxygen, is most favourable to the development of the colour; but as that which is in the direct line catches most of the fire, so it comes about that there is a variation in colour. Other methods of burning are possible, in which the ware is protected from the flame altogether, as shown by C in diagram No. 1. This conduces to evenness, but there can be no such development of colour as in the open kiln; and the colours produced by muffle-kiln burning are, as a rule, pale and sickly. Other effects are obtainable from the same clays by burning with a reducing or de-oxidizing flame, and thus, to quote a familiar instance, is obtained the blue of blue bricks. By combining the several methods, or by alternating the conditions as regards the gases of combustion admitted, intermediate tints, such as greys and browns, can be obtained. Again, by working on the known action of deterrents, such as the lime before mentioned, some very peculiar tints and striking results are obtainable. There is found in one part of Leicestershire a clay which, although red in its unburnt state, is so charged with lime and organic matter, that it burns out positively white. By taking full advantage of the chemistry of combustion and the other factors mentioned, a much greater range of colour than has up to the present been made use of is rendered available; and it is not necessary for the architect to consider his choice limited to the red and buff usually associated with the name of terra cotta. Nor does the choice stop at simple monochrome effects.

The direct flash of the fire affecting the colour, suggests the possibility of utilising it to secure bi-colour effects in ornament; for if some parts, where a lighter colour is desired, are protected from the direct action of the flame in an open kiln those parts will be of a lighter colour. The fuller tones of colour, such as reds and yellow-buffs, give the most decided results, and by the kind permission of your Committee I am able to place before you some specimens showing what can be done.

As another instance of trading upon natural conditions and utilising even disadvantages, I may mention that in some clays there is present a certain amount of soluble alkaline matter, and these evaporate, leaving salts upon the surface of the block in drying. Burning converts them into insoluble white matter, and thus comes about that disfigurement of terra cotta which is known as "scum." Naturally, much attention has been paid to this objectionable result, and the usual remedy is to overlay the block before drying with some repressive medium. But if, instead of coating the whole surface of the block, it is coated only in parts, or painted on as a pattern, the presence or absence of scum in parts will lead to a bi-colour pattern effect, and this can be made a method of permanent decoration. There are specimens amongst those on view which show the result of the treatment I have described.

I must now pass on to methods of manufacture. I will first briefly describe the ordinary process. After the work has been set out, and drawings of the various kinds of blocks made to the larger size necessary to allow for shrinkage, a plaster model is made which may represent either one kind of block, or, maybe, a skilful combination of several having parts in common. From this model a plaster mould is made, and into the mould the clay is pressed, the mould being lined to a thickness (varying with the clay used) of an inch to an inch and a half, and having cross webs, or struts, cutting up the interior into chambers. The mould, being made in parts separately removable, is inverted and removed from the clay, which is left to dry, first for finishing, and then for burning.

Now, everyday acquaintance with this method of manufacturing has failed to convince me that the moulding process is the most natural way to employ the peculiar qualities of clay. Under such a system the clay becomes merely a reproductional medium, and the skill and labour are absorbed in the making of the model and the mould, rather than the working of the clay.

It must be granted that the moulding method is, in those cases where there is a large amount of repetition, the most economical, especially if the repeated parts are elaborate or enriched; and in the case of a building where there is necessarily much repetition of feature, it would be folly to throw away the economical virtue of the reproductional process. Rather should it be utilised to the full by remembering that the considerations of wasted material and cost of "sunk" labour, which

limit design so much in other materials, do not apply in anything like the same degree to terra cotta. Such features as corbelled and arcaded courses, the panelling of flat surfaces, the coffering of soffits, columnar and traceried treatments—provided the elements forming them are used in repetition—do not cost anything like the price of the same features in stone. And this fact may be utilised in construction as well as in decoration, as evidence of which I submit the treatment of an elliptical canopy (shown in diagram No. 2), and which illustration is taken from work actually executed. The difficulty of the arched canopy having no haunch-weight at its abutment (it resting on trusses) is disposed of by making the canopy arch in a double series of voussoirs, each having sunk beds and interlocking, so that the thrust of one is neutralised by the other.

But it would be a mistake to allow the impression to be formed that, in order to use terra cotta at all, the building, no matter what its scale or function, must be treated with repeated features. There is a method of manufacture which is free from the hampering conditions of repetition. This is called the "direct work" process, and it largely trades upon the fact that clay possesses the one characteristic of *plasticity*, which separates it from all other materials, and enables it to be dealt with in ways which no other material admits of.

The clay may be spread out into sheets, and the sheets cut up and worked together to form a piece of ashlar or a plain die-block, as in the specimen before you. Next, a moulding run straight by a reverse template, or expressed from a die, may be bent to curvilinear forms, or cut and mitred into angles, and planted on the face of the block previously made, converting it into a panelled die. Fill up the outer angle with a little clay, and with the hand or a tool model it to a hollow form, so that it not only helps to attach the moulding, but relieves it, by such treatment, from the appearance of joinery. Then you can overlay the moulding with an enrichment—as, for instance, a cartouche separately modelled and attached—and the fire will convert the whole into one homogeneous piece of ware—an enriched, panelled die-block.

The specimens, showing this piece of work in its various stages, will suggest that clay, under direct manipulation, lends itself admirably to what may be called "adding-on" processes—the building up of an architectural feature from its elements, as distinct from reproductional processes—and still more distinct from extravagant measures involving the laborious cutting away of superfluous parts, as is done in stone.

The full and proper utilisation of the plastic qualities of the clay gives to the architect in his design, and to the modeller in his execution thereof, the greatest possible freedom, particularly in ornament. The facility for altering and amending as the work proceeds will be obvious to you; and above all, in modelling, as distinct from carving, it is almost impossible to avoid, even if one wished it, that feeling of growth which you so much desire.

The whole range of processes—free and round modelling, attaching, perforating, texturing, overlaying, and inlaying one clay with another—which the potter makes such apt use of, are equally applicable on a broader scale to architectural work, and capable of producing such varied effects that I cannot attempt in the short time at my disposal to describe them, but must refer you to the specimens on view, which show a few, and only a few, of these possibilities. Amongst the specimens you will find some which show modelled enrichments standing free, giving contrasts of light and shade attainable in other materials only by the lavish expenditure of skill and labour; perforated enrichment, into the recesses of which dust and dirt drifting can only enhance its contrasts; combinations of relief ornament with chromatic treatment; bi-colour work of various kinds, and, in one case, as many as five different colours worked into the design, and this, too, in such a way that each clay forms an integral part of the block or slab. These, I will repeat, are only a few of the possible treatments.

But I do not forget that ornament is not everything, and that truth of line and surface in the plainer and moulded parts of an architectural design are of vital importance. This fact furnishes reasons for the adoption of the direct-working method even stronger than the facility for the production of ornament.

Under the ordinary moulding process of manufacture, the greatest difficulty is to dry the block without distortion after it has left the mould. It has to shrink in drying and burning something like one-twelfth of its whole bulk, and a second process—that of "finishing," or imparting to the ware its smooth and skinny surface—has to be gone through when the ware is partially dried. Much of the want of truth in terra cotta is due to the handling of the block, and to the pressure put upon it at this stage; and it by no means follows that a piece of ware finished true and straight in a partially and unequally dried condition will remain so.

To grapple with these difficulties, two things have been done under the system of direct working. The plastic clay has been compressed by machinery into that denser state at which it may be brought to its finished form at one operation, without disturbance in drying, and has been made up into more substantial masses.

This direct work can only be accomplished upon a block so nearly solid as to bear pressure and handling, and this consideration led to the introduction of cellular terra cotta, or blocks of clay having in them perforations closed at the face end, forming the cells which give the material its name.

The blocks of cellular terra cotta are first made as simple rectangular masses, perforated with holes $\frac{3}{8}$-inch diameter and $1\frac{1}{4}$ inch centre to centre, which are cut up and worked in the manner described. One great advantage that blocks so made possess is that they do not require filling with concrete; also, that they can be made in approximate lengths to fill a given space without

waiting for definite dimensions, and can be cut without deterioration—the structure of the block being the same throughout. Again, they can be fitted round iron stanchions, and other obstructions, the precise positions of which cannot be predetermined; and in many other ways the advantages of blocks which can, without detriment, be cut on the site to suit any necessity, will be obvious to you.

Pursuing the matter further, the question may be asked, If it be possible and desirable to devise methods of working which avoid, in great degree, that distortion which accrues from finishing at a partially dried state, is it not possible to arrive at methods which avoid it altogether? My reply is, that it *is* possible to make it so nearly true as to be beyond the power of the eye to detect faults.

If the ware is taken in its perfectly dry state, by partially reworking it in that state those faults which have occurred in drying are corrected. It will soon become obvious, however, that labour is being expended upon it twice over, and it would have been better to be content with a rough preparation in the plastic state, dealing only with those matters—enrichment, and so forth—in which it is desirable to utilise the plasticity of the clay, leaving the rest to dressing in the dry state. By these means, perfectly true and straight ware is ensured up to the point of placing in kiln; and if the pieces are set in kiln with reference to the position they are to occupy in the work—a pilaster, a jamb, or a mullion, together, or at one level the pieces forming a window-head—it ensures the action of the fire reaching adjoining pieces in a like degree. In this way there is some certainty of keeping the work true, or at least that the distortion will be slight and gradual, and also that the variations in tone of colour will be blended.

In firing, the ware is subjected to the action of a salt, or gaseous glaze. The dressing of the surface gives a texture, and prevents any glitter accruing from the glaze. It is, so to speak, a matt glaze. By dressing, also, mixtures of different clays add to the range of colours some very rich tints, which would be lost entirely under the plastic finish; and by the use of other salts than common salt for the glazing, the colours are not affected. By this method it is possible to obtain terra cotta in which the principal objections that are constantly urged against the material are met.

But I have still to ask your consideration of some other developments in terra cotta manufacture intended to cope with constructional necessities and the exigencies of modern building.

Under a principle which may be called that of "preparations and finishings," and adapted to those cases where the terra cotta must be supplied within a very short time, blocks, such as those marked × on diagram No. 3, can be cut from cellular blocks (kept in stock, dry and ready for any emergency) having on their faces "prepara-" "tions," in the form of projections dovetailed or undercut, for the reception of a "finishing" block. This finishing block has a corresponding dovetailed recess at the back, thereby ensuring secure fixing, and can be made whilst the building is progressing, and be fixed after the erection of the main walls. The diagram will explain this method at a glance, and it will be obvious that under this system not only are pressing time conditions met, but the terra cotta is employed on the surface of the building only, thus avoiding the wasteful burying in the wall of material which serves no other purpose than that of tail-weight—a thing constantly and necessarily done with costly stone and granite.

Another system is that of concrete and terra cotta construction, as shown in diagram No. 4. Tubular blocks, having a series of undercut grooves in the back, are built up, not only forming both the inside and outside of the wall, but dispensing with shoring, as the same groovings which give the key for the concrete allow of the faces being bound together with ties, also of terra cotta. Thus, nothing but terra cotta and concrete, and perhaps iron, enter into the construction.

But in ordinary building, cases are constantly occurring in which it is necessary to encase iron; and tubular sections, as shown on diagram No. 5, produced by the means described for the production of cellular blocks, are particularly applicable in such cases, as sections adapted to fit the iron can be made without incurring inordinate expense. These casings prevent the iron from rusting and protect it from fire. The designing of such casings often presents some difficulty; but a few instances of iron and terra cotta lintel construction, which have been successfully executed, have been selected for illustration.

The time at my disposal prevents my entering into many other phases of terra cotta usage; but having described and illustrated some of its varied forms, I trust I have contributed some practical evidence of the *adaptability* of that material to almost any form of architectural expression.

S. H. Leech.

3. *Its Alleged Disadvantages.*

By Leonard Stokes [*F.*]

Mr. President and Gentlemen,—

Mr. Bell and Mr. Leech having treated of terra cotta, in their Papers, from their own particular points of view, it now falls to my lot to bring before your notice another side to the question—viz., its disadvantages and abuse—and in doing this I am encouraged by the thought that this particular line of action is not altogether of my own choosing, for when I was asked to read you a Paper, an energetic Hon. Secretary of the Art Committee politely suggested to me the advisability of approaching the subject from this particular standpoint. I therefore do so with a mixed feeling of pleasure and reluctance—pleasure because all the feelings I have upon the subject are in entire accord with this treatment of my theme, and reluctance because I feel that the disadvantages of terra cotta as a building material have been already and so frequently made apparent, and its treatment been so often and so unmistakably abused in our very midst, that words from me seem superfluous.

However, with your kind permission, besides speaking of the abuse of terra cotta, I propose to extend my subject by abusing those who have abused it; and in due course, no doubt, I shall be abused myself for so doing. With a fair field, however, and no favour, I think it just possible that I may escape from this triangular duel with a whole skin, leaving my adversaries, I trust, both stretched upon the field.

The time at my disposal is so short that I shall not attempt more than an occasional allusion to the history of terra cotta, or its use by the builder in days gone by. I simply propose to take this much-misused material as I find it staring me in the face in all its unfortunate ostentation. I shall speak, in other words, as "The Man in the Street," and not as one who can boast of any special knowledge of the subject beyond this: that I have never used the stuff myself, and trust that fate will never deal so hardly with me as to cut me off from all honest building materials, and so perchance drive me to the crockery merchant in despair.

How I am to avoid naming certain buildings from time to time to illustrate my points as I proceed, I fail to see. I trust, however, that what I may say will be taken in good part by those who are responsible for the design of these buildings, as in most cases they are personal friends of mine for whom I have a very great regard. But holding the views I do, I feel that if I am to treat my subject honestly—which I certainly will try to do—I must run the risk of bringing about my ears a host of terra cotta hornets. If these gentlemen in their turn can show that I am wrong, I hope I shall be the first to see it, and turn and rend our worthy Secretary of the Art Committee for getting me into such a scrape.

If, on the other hand, I am able to make out a tolerable case against the use of terra cotta, I shall venture to hope that all those who have so far withstood the temptations of the far-famed Prince of furnaces, will ponder well before they slip from the paths of virtue for the sake of such a hollow-cheeked and ugly-coloured mistress as terra cotta, when steadfast stone and the more voluptuous marble are to be had for the asking.

I hold that terra cotta—of course, as generally used only; so please remember this reservation—is nothing but a miserable mockery composed of mimic masonry, which has neither constructional, artistic, nor businesslike advantages to recommend it, and is therefore unworthy of the consideration of architects, who, according to the now well-known dictum, are said to be replete with all three of these highly desirable qualifications.

And now to try and prove what I have just stated: First, am I right in stating that terra cotta has no constructional advantages over other ordinary and more natural materials? It seems to me that I am, for obvious reasons; but then, what is obvious to me may not be so to others.

In the first place, then, the usual terra cotta block has practically no weight-carrying power whatever, as it is simply a hollow cube with one side open, like a biscuit-tin with the lid off. In order to make this crockery cube do its share of the work, it is stuffed full of cement concrete, which, after all, is not a very first-rate material, as it will only carry, as a safe load, some seven or eight tons per foot super. Now, it is this stuffing, of so-called cement concrete, which really does what work there is to do; so if we want to be constructional, why not omit the brittle box enclosing it, and trust to our cement concrete alone? as it can, I believe, be moulded, coloured, and cast much as terra cotta is. This at least would be a reasonable treatment. But no; the unreasonable practice of introducing an additional and very brittle material into the formation of our wall is preferred; and we thus have a wall composed of three materials, besides the mortar—viz., terra cotta, concrete, and the brick backings. Unequal strains are thus set up, as the weakest material naturally consolidates more than the others, and crushing and spauling is generally the result. This, of course, may be said of any brick wall faced with stone; but then at least we have a solid block to carry any extra weight that may be thrown upon it, while in the case of terra cotta—which *may* not be perfectly filled with concrete—we have two very unequal substances, one inside the other, either of which may fail and damage the other, and the building generally.

In principle I maintain that this is bad construction, even if in practice the difficulty may be so far got over as to make a building stand. This fact, however, reflects no great credit upon the architect who relies entirely upon the manufacturer and the builder to get him out of those difficulties in which he, through his own perverseness and want of thought, deliberately entangles himself. If the manufacturer, however, were not quite so clever, then the architect might be forced into treating the material more reasonably; but in this latter end of the nineteenth century we suffer much all round from a misdirected dexterity in production combined with a sad lack of invention in design.

There is a terra cotta block now in the market known as "cellular." This, instead of being a hollow cube, is perforated with small circular holes, after the manner of some bricks that are to be met with. This is certainly an improvement, I should say; but it is only applicable in some cases, I believe, and, besides, the block still remains very brittle and unreliable, particularly if made as large as $2' 1'' \times 1' 6'' \times 1' 3''$, which is the size of some blocks I measured the other day. In cases of fire, too, I understand that this kind of terra cotta would burst in a most objectionable manner. The manufacturer, also, in making them seems generally to place the cells in the wrong direction—*i.e.* horizontally instead of vertically—and I am not quite satisfied either that the ends of these cells are always quite properly closed up, although, of course, it is possible to do so; and on testing, it has been found that this form of terra cotta will not stand as much weight as good brickwork, and therefore only about one-third of the weight of good Portland stone.

Again, terra cotta being very hard, and to a great

extent non-porous, and consequently non-absorbent, neither mortar nor cement will adhere properly to it, and thus the bond and part of the strength of the building in which any attempt to use it constructionally has been made is impaired. I know of a case where a large portion of a building had to be taken down, and rebuilt with various extra precautions, for this very reason; and any one who wants to test this point for himself may do so by trying to fasten two pieces of glass together with Portland cement. The principle is the same, although perhaps a little stretched.

Another objection to the use of terra cotta is, that after waiting perhaps for weeks for an instalment from your art-pottery merchant, it arrives, but under-burnt. The joy, however, of getting it at all is so great that it is apt to warp the judgment and lead you into using it, when your better and more reasoning self says, "Reject it as unfit "for use," as I am told that generally about 10 per cent. of it is unfit, in one way or another.

It is often said that terra cotta is "everlasting "wear"—in the words of the haberdasher. If it were I could only reply that I am sorry for it. But it is not so; and on this point any one can judge for himself who will only take the trouble to investigate the subject. During the last few days I have examined several terra cotta buildings in London, and I find that, without exception, those that have been erected for anything like ten years show signs of either crushing or disintegrating, to a greater or less degree, according to circumstances.

I lately "interviewed" a friend of mine—who shall be nameless—who has used terra cotta pretty freely. He at once said that he would never dream of using it constructionally. He, however, advocated its use as a casing for ironwork in such places as shop-fronts, &c., and I am inclined to admit that there may be something in favour of such a treatment; but as long as we can get such good shop-fronts as the Orient Company, in Cockspur Street, have lately erected in honest, durable Portland stone, why, I, for one, say, Save me from spurious imitations! But casing iron construction with terra cotta is one thing, and constructing ironwork inside a stone treatment is another and very different matter. To ornament your construction is allowable, but to conceal so-called construction inside your would-be ornamental design is most reprehensible.

This same gentleman further told me—in spite of his having tried to persuade me that terra cotta was not such a bad material after all—that he had registered a vow to heaven never to use it again. Now, this appeals to me as a very proper form of "registration," and I trust that many other architects will follow his good example.

If terra cotta really were a legitimate and constructional building material, surely we should have seen it made some good use of before now; but has any one ever seen an engineer use it constructionally? I have not; and, so far as I know, the only real use it can be put to is for making "damp courses," where I believe it answers its purpose tolerably well, but looks extremely ugly.

There is a church fast approaching completion where terra cotta has been freely used both inside and out. On the exterior we find the usual mistake of treating this *cast* material as though it were *wrought* stone in a colour in which all effects of light and shade are pretty nearly entirely obscured; while inside the same mistake as to treatment in a lighter-coloured clay is found—nave and aisles, arcades and clerestories, all of the regulation stone pattern. Nothing could be prettier or more highly ornamental. But do these terra cotta piers and arches really carry the walls and roof above, I inquired. "Oh dear no, sir," replied my guide, "there's a sturdy iron stanchion inside "each pier, with an iron girder over the tops of "the arches; they take all the weight." "Thank "you," I gasped. "Good afternoon." On my way to the fresh air, however, I ran my rule over the piers, and when outside I discovered that their sectional area was just three superficial feet. Now, one of my friends the manufacturers has told me that terra cotta will stand a load of 70 tons per foot super; therefore these piers would carry just 210 tons, or rather more than ten times their real load, I should fancy. Evidently architects and manufacturers do not agree as to the strength and reliability of terra cotta.

All the examples of old "terra cotta" that I know of, either in this country or on the Continent, are designed and executed on quite different lines from those employed by the modern builder in this material. In the first place, all constructional blocks are small and solid, and are, generally speaking, really *brickwork*, and not what we call terra cotta at all; and when used ornamentally it is so arranged as to be free of all weight, and is formed in slabs and applied to the wall, or inserted in it, as a decoration only.

Secondly, am I right in saying that terra cotta has no artistic advantage? Well, I think so—at least, I can see none; but that may be my fault, and, again, I may be in the wrong. But to me there is a most distinct and well-defined difference between architecture and ornament, proportion and mere prettiness, good building and showy vulgarity. To me a modern terra-cotta building looks uncouth and miserable, and about as lifeless as the cheek of a dead Chinaman. Its colour, for one thing, seems impossible to manage. Take, for example, the best specimen I know—viz., the Albemarle Hotel, a building in which much care has evidently been spent in endeavouring to produce a satisfactory and harmonious effect. What is the result? After only a very few years, the little life the colour ever had has now assumed a light-purplish apoplectic tinge, which does not augur well for its future. I cannot trust myself to speak of some buildings that I know of, where a rankish red terra cotta has been used with, perhaps, dark bricks, black pointing, and chocolate-coloured ironwork; or, maybe, the other well-known variety of tint, viz. the bilious buff, picked out with another hue, or perhaps left cruelly alone in all its unutterable depravity.

In stone and marble there is a chance of getting a dignified and at times even noble effect; but in

terra cotta, all restraint, reserve, and reticence seem to be removed, and sensuality takes their place. Imagine for one moment, if you can, St. Paul's—I mean the Cathedral, not the Schools—built in terra cotta; or take Westminster Abbey: would that look any better for being erected (I cannot say constructed) in a rich plum-coloured terra cotta? Of course, I may be told that it would at any rate look cleaner and would be more permanent. Well, so it might be—for the sake of argument—but it would be cleaner and more permanent still if built of white glazed bricks.

Smoky London does, no doubt, often make our stone buildings look somewhat dismal; but to me, smoke-begrimed as they are, I prefer them to the unclean monotony of tone which is so characteristic of the usual terra-cotta building one sees about. The shrill-voiced sweep is certainly, as a rule, dirtier than the half-washed maid of-all-work of lodging-house repute; but which is the more picturesque, even granting the maid the advantage of a buff or plum-coloured front of modern cut?

The effect of a terra-cotta building is always mechanical and dreary. Spontaneity and freshness seem to be impossible with such a material, which never even weathers, blends, or tones harmoniously as most other materials do. Compare the Law Courts with the Natural History Museum—apart from their design of course; in one case a decided, and I think picturesque, *effect* is coming over the building, while in the other the material is as uninteresting and unsympathetic as the day it was put up, or even more so if that were possible.

How is it that such men as Bodley, Philip Webb, and Norman Shaw have never used it, or if they have done so, only to drop it again like a hot potato? All these men are pre-eminently artists, and one at least of them has taken up and used successfully within their limits such materials as ornamental plaster work, half timber work (both solid and sham), tile hanging, and other prettinesses, but never to my knowledge terra cotta; and for the simple reason, no doubt, that he felt that no decent result could be obtained. If Mr. Norman Shaw has hesitated to take up this material, how much more should we hesitate, who have not one tithe of his fertile facility of invention!

That some men eminent in our profession have used it, and do so constantly with more or less success, is a matter of notoriety, and I presume they have their reasons for so doing. If no other material were to be had I could understand it, or if mere pretty building were their only aim; but to put up a large mock masonry building constructed *apparently* entirely of terra cotta, is, to my mind, but little short of criminal. The kind of building I refer to is probably familiar to all of you, I will therefore only add that such designs seem to be entire misconceptions, and a violation of all those principles we were taught to respect as students. Had the result been satisfactory, the principles—or the want of them—might have been forgiven; but the bad effect these buildings have upon the profession, and the public at large, is, I feel sure, retarding architectural progress, and is, therefore, much to be regretted.

I have been told that the old Italian terra-cotta buildings would lose much of their charm if erected in any other material. This may be so, but I contend that they would have no charm at all if constructed on modern terra-cotta principles. The real charm they have to me lies in the fact that they are indigenous, and a natural outcome of local circumstances. We find terra cotta always in countries where stone is hard to obtain, and never, I think, in districts where stone is plentiful. The architects of old made the best of the materials at hand, but never abandoned stone, when it was to be had, for the sake of such an inferior building material as terra cotta.

We are beginning to learn that there is a proper and legitimate treatment for cast-iron, which is a somewhat similar material; let us, therefore, hope that we have seen the worst days of this terra-cotta mania, and that if the material must be used—and I see no real objection to its proper use—that some great man will rise amongst us and show what it is really capable of as a material used architecturally.

We now look with righteous horror on the few remaining cement-covered churches and other such buildings that have come down to us from "degenerate times," the hand of the "restorer" being everywhere turned against them. How long will it be before our children rise in their turn against the earthenware erections of to-day?

Thirdly, as to the businesslike advantages of terra cotta. I think I have shown you that there are at least grave doubts as to its being either a constructional or an artistic material as it is generally used, and now let me add that it is also most miserably unbusinesslike. We will put on one side the trouble of drawing extra large, full size, and other details—which may or may not allow for the exact amount of shrinkage—all of these should be drawn by the architect himself if he hopes to produce anything like the result he is aiming at; but I will just point out, in passing, that this often nearly doubles the number of drawings to be made, and therefore quite doubles the risk of mistakes and inaccuracies in which our otherwise excellent assistants so much delight.

The first question of a businesslike nature is usually cost. Now, how does terra cotta stand this test? In my opinion terra cotta is dear at any price, but let that pass. I will, however, try and prove to you that a well-designed building of a dignified nature can be erected quite as cheaply in Portland stone as in terra cotta. If this is the case, in Heaven's name why use the pottery? I hope you clearly understand that I am not going to try and prove that every terra-cotta building, with all its petty prettinesses, could have been put up at the same price in Portland stone. What I contend is, that a well-designed building, can be put up in Portland stone just as cheaply in terra cotta. To illustrate my meaning, let us take the Banqueting House, Whitehall, and a few builders' prices, and compare them with the Constitutional Club in Northumberland Avenue.

I know of two large public buildings now going up in London in which the average all-round price of the Portland stone and all labour, fixed, is 6*s.* 6*d.* per foot cube; and I have very good reason for believing that the terra cotta of the Constitutional Club cost—or at any rate *would cost to-day*—quite 7*s.* * per foot all round, fixed. This being the case, all I wish to ask you is, which is the building for your money?

Or, take such a building as that lately erected for the Chartered Accountants in the City. I am told that the Portland stone and all labour for that building cost just about 7*s.* per foot. Now, few better buildings have been put up this century, and I defy any one to put up a building in terra cotta which can hold a candle to it. The designers of terra cotta buildings may be known and popular to-day, but the names of the designers of such buildings as that for the Chartered Accountants will be coupled with those of Wren, Cockerell, and Barry in generations that are yet unborn.

In calculating the price of terra cotta, however, one has to be rather careful, as there are very many points to consider. First there is the ironfounder's bill, next the manufacturer's price, then the filling with concrete and fixing, and after that an additional 10*s.* per rod on the brickwork all round to allow for fiddling about, waiting, and for the irregular and inconvenient way the brickwork in terra-cotta jobs has to be erected. Add to this the extra cost of supervision involved by the almost invariable delays that occur with terra cotta, extra insurance, working expenses, and fines for non-completion of contract; and then divide by the number of feet of terra cotta, and I shall be very much surprised if the result does not come out higher in most cases than Portland stone would, *i.e.*, in a building of real architectural pretensions, where proportion, scale, and dignity are considered before meretricious popular effects of mere cleverness, very possibly combined with vulgarity. But, as a matter of fact, I am told by those who should know, that a builder never really does know what terra cotta costs him.

A friend of mine was lately mixed up in a curious case arising out of the failure of the terra-cotta manufacturer to deliver his ware in time. It was a question of getting some shops rebuilt by a certain Christmas quarter-day, and the contractor failed, for the reason I have given, to complete in time. The tenants naturally could not take possession, but nevertheless the landlord required his rent, and, having tried unsuccessfully to obtain it from the tenant, the contractor, and the terra-cotta manufacturer, he was last heard of trying to get it out of the architect, but with what success history does not relate.

Another story, which should appeal to architects, is told of an irate client deserting the architect, who by divine right should have done all his work, simply and solely because of the delay which arose from the use of terra cotta on an important building which was wanted by a given date.

All this goes to prove that as a businesslike material terra cotta is a delusion. In the first place, it is very hard to get it up to time, and when you have got it, it is very hard indeed to fit and fix. It is not cheap, or, at any rate, it is no cheaper than a very much better, stronger, and more durable material, and it is often the cause of delays which mean loss of capital as well as interest, and in some cases work also—to the architect who uses it.

Having shown—at any rate to my own satisfaction—that terra cotta is good neither constructionally, artistically, nor from a businesslike point of view, I hold it to be as bad theoretically as it is practically. I have consulted manufacturers who told me that even hollow blocks would stand a load of seventy tons per foot super, and I have consulted architects who would not dream of using it constructionally. I have consulted buildings, and I find them disintegrating, and crushing under the slight weight which has been set apart for the terra cotta to carry. I have consulted my own feelings, and I find the modern use of terra cotta to produce on them a most nauseous sensation. I have been told by architects that they used terra cotta some twenty years ago, but have not used it since—by a builder of experience that he "could not find "words to fit it" (he did not add, nor men either, which he might have done)—and by a clerk of the works who has seen much service, that "it's a pest" and "not fit to be used on any "respectable building."

In conclusion, let me advise all those who may be about to use terra cotta to follow *Punch's* advice to those about to marry, and "don't," or at any rate don't do so unless you can get no other more suitable material. If, however, you are driven into using it, then try and grasp the limitations of a material, which may, after all, perhaps, be more a sculptor's than an architect's, more suited to ornamental modelling and reliefs, than continuous planes, fluted columns, and running moulding.

Many of our leading and most eminent architects have used and re-used terra cotta until they most certainly should have become masters of the material. It comes to this, then, that if we are satisfied with our men, we have no alternative but to blame the material,—*i.e.* if we do not like the result. And yet many old buildings which are dear to us seem to show that, under certain condi-

* In order to show how I arrived at this figure I had better, perhaps, give an extract from a letter which I received from a terra-cotta manufacturer who is well acquainted with the work at the Constitutional Club. He wrote me on 20th February: "... the approximate price per foot cube for terra-"cotta work like the Constitutional Club would be "5*s.* 6*d.* to 5*s.* 9*d.* per foot cube delivered at a railway "station in London. I don't undertake the filling "and fixing, and therefore regret I could not tell you "what it would cost. Of course the above price is "not inclusive of any enriched modelling." The price given me being "at a railway station," I added what I thought proper for carriage, filling, fixing, &c., and thus arrived at the approximate sum of 7*s.* per foot cube given above.—L. S.

tions, our forefathers were able to turn out really thorough and meritorious work, of not too ambitious a nature, in which terra cotta played a prominent part. Even such a building as the Science Schools at South Kensington shows plainly that it is quite possible to build a fine modern *brick* building with terra-cotta ornament applied; and I venture to state that these Schools approach more nearly to a satisfactory solution of the problem than any other building in London, or, for the matter of that, in England, so far as I know. Notwithstanding this, I venture to raise my voice to express a hope that as the contemplated design for the completion of South Kensington Museum departs from the original scheme, so it may depart also from the original materials. Terra cotta is *not* a sufficiently dignified material to use in a large public building of this nature.

It must not be supposed that I wish to contend that terra cotta should not be used at all. I do not go quite as far as that. If you are content with mere *pretty building*, then terra cotta can be used; if you want architecture, then use a material in which it is possible to express fine ideas on a fine scale and in a fine manner.

Terra cotta has led some men so far astray that even when they *work* in stone they *think* in terra cotta, and the result is most destructive and distressing, and often gives one the impression, when looking at one of their stone buildings, that this, too, must have been burnt, and that the whole has evidently shrunk in the operation.

At Layer Marney Towers in Essex, East Barsham and Oxburgh Halls in Norfolk, and in much of the work in North Italy, North Germany, Belgium, and Holland, and in fact in all flat countries where stone was hard to get, terra cotta has been used, and used successfully as far as the limits of the material will allow; but the terra cotta of these places is not at all similar to the terra cotta of Shaftesbury Avenue, Charing Cross Road, Kensington or Hammersmith. The blocks, which are much more like what we call moulded brickwork, as I have already pointed out, are never very large, and are always solid if used constructionally—at least that is my belief, although I have only become a specialist on this subject during the last fortnight or so. I have, however, during that short time, seen terra cotta made, used, and fail; and by looking up my old notes and those of my friends who have kindly helped me in this matter, I have been able to arrive at the above conclusions.

I might perhaps have condensed a too long and tedious Paper into a title and three short words, the title being "The advantages of terra cotta as "a building material"; and then the Paper—"It "has none."

I will only add that if I have assisted in ringing the death-knell of terra cotta, I am satisfied that I have in my small way helped to show that our occupation is somewhat nobler than the potter's, which may be all-sufficient to the art-crockery collector, but will not suffice for him who would help to elevate his Fellows, his Associates, and his Calling.—LEONARD STOKES.

Discussion.

MR. ALEX. S. MURRAY, LL.D. [*H. A.*].—Sir, I feel an intruder into a Meeting which has begun to be very lively; but on learning by the usual means that the subject of discussion to-night was to be terra cotta, I thought you might like to see some ancient Greek specimens of it, dating from the early part of the sixth century B.C. These and many others were found on the site of a Greek colony at Civita Lavinia out from Rome, in the course of excavations by an Honorary Associate of the Institute, Lord Savile, who has carried on excavations on a vineyard belonging to himself there for a number of years. He has given most of the terra cottas to the Museum, and we have been engaged for some time in putting them together, and have got so far as to make out a number of slabs a little bigger than this specimen, which had been fastened with bronze nails on to some wooden structure, and a number of other pieces which appear to have belonged to a small Greek temple, the walls of which would probably be of sun-dried brick, the roof and entablature of wood faced with these terra cotta slabs. We hope to be able to restore a corner of this temple, showing part of the angle of the pediment, and part of the cornice along the side, on which were ante-fixal ornaments in the shape of heads and groups of great beauty. I have not been able to bring these here, because they are the property of the Museum; but the specimens which I have brought are still the property of Lord Savile, who has kindly allowed me to bring them for you to see. Now, Sir, I would like to get something in return for this, and I would be glad if you would examine these slabs and tell me how you think they have been used. It is clear that they have been fastened through the upper part by bronze nails; but there is a scalloped border which could not have been fastened against anything, because it is richly decorated in the inside with a pattern answering to the patterns in relief on the outside. A number of terra cottas of the same kind have been found at Falerii, and are now in a museum out of Rome, called the Villa Papa Giulio. Those of you who have been there of late years will have seen them, and you will have seen also in the courtyard of that villa a wooden model of a temple which has been erected to show that terra-cotta slabs had been employed. In this model of a distyle temple there stretches from capital to capital a wooden beam, which would be of the thickness of the upper part of this slab. On to this beam the terra-cotta panels were fastened with bronze nails, the lower part of the slabs hanging free, so that one could see the back when standing looking up. This would look very rude without some decoration, and it was decorated accordingly. That is the present explanation. But when we have got the rest of the fragments in the Museum we may be able to find a more definite solution of the matter. At all events, these specimens show you fairly well what the Greeks did in the earlier part of the sixth century B.C., before they got to working with freedom in marble.

SIR HENRY DOULTON.—Mr. President and Gentlemen, I really did not intend to make any remarks this evening, and I think I may say that that (pointing to the exhibit) is the best speech I can make. I was proud of being a potter till I came here this evening; but I have heard to-night that it is a vulgar occupation. I would only say, first of all, as to the plasticity of the material, I think it has never hitherto been appreciated by architects. As to its durability, I may perhaps mention two examples which occur to me as within my own observation. The figure of Britannia on the top of the Exchange at Liverpool was made a hundred years ago at Lambeth, and also the figure of Sir John Crosby, which was made when I was a little boy at Lambeth. These, especially the figure of Britannia, though exposed to adverse influences, are as perfect to-day as on that of their erection. There happen to be two large statues on the triangular piece of ground opposite St. Thomas's Hospital, brought there recently, also made at Lambeth, which are ninety-six years old, and which have been quite untouched by time. There is of course terra cotta *and* terra cotta; but there is no reason why terra cotta should not be absolutely imperishable. There have been, undoubtedly, great advances in all descriptions of pottery of late years. Latterly we have given more attention to terra cotta, and Mr. Leech has assisted us, I think, in developing some entirely new effects—not only beautiful effects, but also some entirely new modes of construction. But, Sir, I shall be more happy to listen than to speak —I hope I shall learn something from the criticism of gentlemen so well qualified to speak on the subject. I will, however, make one remark as to fire, in reply to the statement that in this respect it is an unsafe material. We happen, unfortunately, to have had a very large fire at Lambeth, and the only material that withstood its action was the terra cotta; it was as perfect as when it was put up, though the stonework was entirely destroyed.

MR. J. M. BRYDON [*F.*].—I rise, Sir, as one of the Art Committee, to perform a pleasant duty that we always observe when we meet here, which is to propose a vote of thanks to the gentlemen who have read these most interesting Papers on the subject of terra cotta. We have to thank Mr. Ingress Bell, who I am sorry has gone away; we have to thank Mr. Leech, and we have to thank Mr. Stokes, who has certainly brought the subject before us in a most picturesque manner. I am sure we all listened very attentively to everything that Mr. Bell had to say in advocacy of terra cotta. But though I have listened, I have not heard what reason he gave for using terra cotta instead of our nobler material, stone. I cannot understand where the advantage comes in. We have been taught in this Institute that we are to use the noblest material we can, to design in the noblest manner, and to produce the best possible workmanship. That is the sort of aim that architects have kept before them from nearly all time down to the present; and if we are to have a material which depends really much more upon the chemical laboratory and the kiln to produce architecture than the handicraftsmen we employ, I ask in all honesty are we not going the wrong way about it? There is no material to my mind so noble, of course, as marble. But we cannot always get marble; and the next noblest material that we can get is stone, and there is no difficulty whatever in getting stone in London. Whatever may have been the difficulty in old days when transport was difficult, it is useless to tell us, who are living in a country or a locality where there is no stone, that there is any difficulty about it now. Railways have annihilated space with regard to that, and we can have any quantity of material. Therefore I hold, Sir, that the case for terra cotta to-night has not been made out. Terra cotta has not been proved to us as a nobler or more durable material than stone, or a material which is likely to produce greater or more noble effects in architecture. The very fact that you have to consider in your design that the material can only be produced in very small blocks seems to me to cramp the whole ideas of a man who designs in a broad, strong, durable manner; he is constantly being reminded that he cannot do this and that, because of the material, when all the time he is hampering himself with a material which there is no occasion to use at all. And I particularly wish to emphasise this in the case of public buildings. I can quite understand that sometimes down in the country for some little country house or village club terra cotta may be appropriate where the transport of stone just in that neighbourhood may be difficult. But surely when we come to erect public buildings the noblest material that we can possibly get is the material that we ought to aim at, and not cramp ourselves with the difficulties of a material that will shrink and has to be filled up with concrete and so on, when we have a magnificent and durable material like Portland stone. I do not want to detain the Meeting, but one of the great points, as I understand, for which the use of terra cotta has been advocated is its cost. Now, I should be disposed very much to question this, and knowing that this Paper was coming on, I took the trouble to ascertain in two or three directions the relative proportions between the cost of building in terra cotta and building in stone in London; and invariably I have been told by some of our leading builders that they would rather build twice over in stone than once in terra cotta, because of its cost and its trouble. But there is one building that I should like to quote—I do not suppose the architect would have any objection to my mentioning its name—the Battersea Polytechnic. Estimates for that building were obtained in three materials: Monk's Park Bath stone, which is an excellent building stone, terra cotta, and Portland stone. The cost of the ornamental work all through in Bath stone, properly fixed, was 4*s.* 8*d.* per cube foot; the cost in terra cotta was 5*s.* 11½*d.*; and the cost in Portland stone was 6*s.* 9*d.* This is all fixed. Then besides that, if terra cotta was used there was a stipulation in the

estimate that 10*s.* per rod must be added for the cost of brickwork. I think that that honestly and fairly disposes of the question of cost. If we can get a material like Portland stone in London for something like 9*d.* a cube foot more than terra cotta, and if we can get a material like Monk's Park Bath stone, which is a very good material, for 1*s.* 3½*d.* a cube foot less, there is no ground that I can see why we should use terra cotta in preference to stone. I do not say for one minute that you can produce this highly ornamental decorated material in Portland stone exactly at the cost that you can in terra cotta. But do we want all this superfluous ornamentation? (Cheers.) It is coming to this, Sir, that we are learning to design buildings like furniture. The art of designing buildings in a broad dignified style is fast perishing, and with this terra-cotta craze we are not doing great things; we are doing little things on a big scale, which is a very different thing altogether. I hold strongly that we are on the wrong tack, that this building constructionally in terra cotta is the wrong way to go to work. It is a decorative material pure and simple. It has its uses. I do not say never use it; but why put up immense buildings in terra cotta instead of stone? We are asked to admire a certain diagram, which you can see for yourselves is an imitation of stone. Why go to the trouble of burning in a kiln, and trusting to the chances of fire and chemicals of all kinds, and the filling up with concrete, in order to produce what you can get cheaper in stone than in this terra cotta? Therefore I hold that the case for the use of terra cotta has not been made out to-night. I have every admiration for the skill that is brought to bear in getting over the difficulties. But we do not want the difficulties. We have a simple and magnificent material for building. And if it comes to the point of distance, all our terra cotta is not made in London, but a great deal is made a long way from London and has to be brought here. Therefore the plea that we have the material immediately in the neighbourhood at once falls to the ground. There are a great many points that I noticed with interest in Mr. Leech's remarks. I do not hold, with all due deference, that building a thing, as shown in another of his diagrams, in a sort of rough key and sticking up the stuff afterwards is nobility in architecture. If enclosing an iron girder in that way is noble architecture, it is quite contrary to all I have ever learnt about what noble architecture is, and I hope we shall never get so far as to make anything like that a durable style in England. When I am told that such noble buildings as St. Paul's Cathedral and Somerset House have been surpassed in London by terra cotta, then it will be time to look at it; but so far they have not been. As I said before, I think all this is a passing craze; we shall come back in time to honest good stone.

Mr. C. FORSTER HAYWARD, F.S.A. [*F.*].—I wish, Sir, to refer to a matter of personal experience in terra cotta which I think will dispose of some of the objections that have been made to it; but, before doing so, I should like to say a word with regard to some terra cotta work in ancient buildings. One has particularly been referred to, viz., Layer-Marney in Essex. But there is another not unknown—Sutton Place, Surrey—where a large quantity of terra cotta was made and used, which has stood admirably for a considerable number of years—indeed, ever since 1530. In that case the terra cotta was, as Mr. Stokes well observed, made in solid blocks; I could have brought one piece which, in its delicate state—an Arabesque detail—would have compared favourably after this lapse of time with those now exhibited here. I may say, in passing, that Mr. Norman Shaw, in making certain restorations, did execute three or four windows in terra cotta—reproductions of those at Layer-Marney in terra cotta—and he has had some little experience of that ancient work. Anyhow, we must not disparage it, nor what has been done there, as it was entirely constructive, and was built in with brickwork in the most legitimate manner. At the same time, I am not an advocate for using nothing but terra cotta, nor for substituting it for better material; but having used it myself, I would like to mention my experience of its use at least twenty-eight years ago, in a large building at Plymouth. We were using granite and limestone (which I may call marble, it is really so full of variety of colour and tone), and had intended to use some freestone for window dressings, &c. There happened to be a great strike among the masons, and we could not get on with the work, when a certain terra cotta maker, well known at that time, named Blashfield, offered to do this portion of the work in terra cotta. It was redesigned to suit the material, and the result was that a great deal of terra cotta was used in that building constructionally, as stone would have been used. At that time I was much impressed, as I am still, with the terra-cotta windows of a delicate kind of Renaissance tracery at Layer-Marney, dating 1515. I felt it was a delightful kind of work in its way, and thus I took the opportunity to try something of the kind. That has stood for twenty-eight years in an exposed position, open to all the weather that comes in from the south-west over Plymouth Breakwater, which is sometimes very destructive to stonework and building generally. There seems not the slightest damage or decay in the terra cotta; it seems to me to have stood as well as any of the other material in the building. I merely throw this out, not to advocate the use of terra cotta specially, but as a proof that when properly done it really is a good building material. Now, it was made in this way. Blashfield had established some works at Stamford, and had taken immense pains to get the best modellers and carry out all kinds of artistic work there. I was able to see the work as it was actually modelled on the spot, and care was taken that the actual touch and surface, as it was finished by hand, should be preserved. Therefore I think that if work was done, and well done, at that period in an architectural, constructional manner, it can be done now.

Colonel ROBERT W. EDIS, F.S.A. [*F.*]—Sir, when I came here I hoped to have spent a

pleasant evening in listening to some new ways of using what I believe to be one of the most valuable materials of the present day. I was not quite prepared to listen to such an entertainment as that provided by Mr. Stokes, in which, in somewhat laughable and grotesque language, with but little amount of real knowledge of his subject, he attacks most unfairly, and certainly ignorantly, the use of terra cotta and his brother architects who use it. I should not have got up at all, Sir, but that Mr. Stokes, whose experience of terra cotta and its use, based upon superficial observation and inquiry extending over a few short weeks, claims for himself a much greater knowledge of the material than those who have used it for many years and know thoroughly its capabilities and advantages. He has attributed to my work in the Constitutional Club merits or demerits which do not belong to it, and has shown simple ignorance of the first elements that a lecturer should have—namely, exactness as to details and knowledge of his subject. He has stated that the cost per foot cube was a certain amount. Now, as I was the architect, made the designs, worked out the details, and went through all questions of cost, I think I ought to know better than he what it thus was; and I say that it did not cost anything approaching the sum of money that Mr. Stokes said it has cost. Beyond that I do not want to discuss Mr. Stokes's Paper. Persuaded, I suppose, by the Honorary Secretaries of the Art Standing Committee, that we ought to have another side to the question to that likely to be set forth by Mr. Bell and Mr. Leech, he doubtless read his Paper with a view of setting forth absurdities which do not exist, and of raising a laugh at the expense of those who do use the material. But what I do wish to say is that I traverse his statements from beginning to finish. If terra cotta has been used in some of the best buildings in Northern Italy, as in the Certosa at Pavia, and, as Dr. Murray has told us, six centuries B.C., I do not think that those who use it now in a larger and different way can be more blamed than those who use plate-glass instead of the smaller panes that were in use when plate-glass could not be made. Of course, if we are to go back in everything, and are to have no progress in any material, I can quite understand that no new material should gain credit or renown with men of our profession, whose aim should be, in the interests of art and of progress, to find some material which will stand our climate and the many evils of smoky cities. Mr. Stokes ought to know (as all who have any real knowledge know) that no stone save perhaps Portland stone—and much of that has decayed—will stand for any time when subject to all the deleterious gases and smoke of big English towns. In every building—even St. Paul's Cathedral and Somerset House—where this particular stone has been exposed to the weather and become so beautifully white, that white is not an evidence of endurance, but rather more or less of decay. If you examine the more brilliant portions of any Portland stone building erected during the last three centuries, you will find it is decay in that stone that has caused much of the brilliancy and whiteness which we admire. With regard to Bath stone, I should like the lecturer to tell me where Bath stone has stood for any time in London. As to the nonsense talked about facing with terra cotta, I remember a building in the Kensington Road that for a long time presented an unnatural appearance of toothed stock brick, and was so left until the veneering of these red bricks was ready. If that is not flimsy construction I give Mr. Stokes the benefit of his opinion. Beyond that, I hold that terra cotta as a material has a nature of its own. I cannot help referring back to a building of my own that Mr. Stokes condemns. Although I am responsible for it, I was assisted by one of the cleverest young sculptors of the day, Mr. Frampton, who modelled a good portion of that ornament for me, and I had the advantage of his hand and his workmanship and of his art and design, whatever it may be worth; it may not be worth anything to Mr. Stokes, but, luckily for me, Mr. Stokes is not the sole critic of the world, and we shall be judged by others when Mr. Stokes has arrived at that period of life at which I have arrived now, equally well and, I hope, equally satisfactorily. I say that you have in terra cotta a material which enables you to have good and true artistic effect in all ornamental and architectural detail without being touched up by any ghost of any kind whatever. The late Sir Edgar Boehm did not despise terra cotta in his own house; he modelled a great deal of the ornament, and that ornament remains to-day as an example of the artist's renown and credit. And, more than that, as to saying that terra cotta is an unconstructional material, I can only suppose it is due to the ignorance of the lecturer; and why he should come down to a body of professional gentlemen and talk to them after a fortnight's knowledge of a material that others have spent a whole lifetime in testing, I am at a loss to understand. But as he has done so I will tell him that he is grossly mistaken, and that terra cotta does not need to be filled up—that terra cotta will stand a greater strain than most stone, and will bear a greater pressure than most stone, and is a perfectly sound and valuable building material, and requires no greater support than its own. I know a great many builders who say, when terra cotta is used, that they want something more on their brickwork. My experience, which is not a short one, always shows me that, whenever possible, builders seek to show that terra cotta is a material that cannot be used without costing more for fixing, doubtless because it is a material that some trades would rather do without; but those who are to be trusted to build in terra cotta will not employ a credulous architect who will give way to the builder in that way. All I can say is that having used terra cotta largely, and hoping to use it more largely still, I hold that in cities like London and other large cities in England, with all the deleterious products in the atmosphere of smoke and other impurities, terra cotta is one of the best materials that you can

possibly have. Mistakes may have been made by those who have used it; but no man is worth anything who never made a mistake, and what I say is that those who have used terra cotta are doing their best to make buildings which shall at all events hold their own for a long time to come, and shall not decay and pass away like those buildings of stone which are gradually going to pieces. I am sorry I was not here to listen to Mr. Ingress Bell's Paper. He has been associated with Mr. Aston Webb in what certainly, to my mind, is one of the most artistic buildings in this country—that is, the Birmingham Assize Court. And if, forsooth, because your critic decries terra cotta, he is going to damn and condemn every building that is put up in terra cotta, what faith can we have in the critic, or of what value is his criticism? Who shall teach him, Sir, when he already knows so much in so short a time? I say that terra cotta is one of the best materials that you can use for London; you can adapt it to almost anything. And I say that the potter's art is one of the greatest arts that the world has ever known, and that our critic will ever show to us. I should not have risen, Sir, to-night, but that I felt that if I had not done so I might have allowed an error, which was unintentional, I am sure, on the part of Mr. Stokes, to have remained, viz., that his information as regards the cost of terra cotta being in excess of stone work was incorrect as regards the building to which my name is attached.

Mr. JAMES NEALE, F.S.A., [*F.*]—Mr. President, the Secretaries of the Art Committee, and Gentlemen, I have very great pleasure in seconding the vote of thanks which has been proposed by Mr. Brydon—a fellow member of mine on the Art Committee. I feel sure we are all indebted to Mr. Ingress Bell and Mr. Stokes, but perhaps more especially to Mr. Leech for his kindness in coming here and instructing us in the technical part of the subject. And, Sir, we are also indebted to Sir Henry Doulton for the excellent exhibition of terra cotta he has arranged here. (Cheers). The only fault I have to find is that the exhibits are too good. They are so tempting, and show terra cotta without its faults. Throughout Mr. Ingress Bell's and Mr. Leech's Papers there seems to run the one idea of "orna-"ment." By using terra cotta you can have any amount of ornament reproduced at a low cost. There is the temptation and fear of having too much ornament on our buildings—too much prettiness and not enough repose. I much regret that Mr. Waterhouse is unavoidably absent to-night, for terra cotta is a subject he takes especial interest in. I confess that some years ago I was much pleased with the introduction of terra cotta, and hoped we had a material that would resist the London smoke and fogs, besides having many other good qualities. One thought of the terra cotta one had seen abroad, and expected much. How sadly one has been disappointed! Terra cotta, in the hands of such masters as Mr. Waterhouse and a few others, and made by good manufacturers, was one thing; but some of the terra cotta, badly designed and turned out at the cheapest rate, is degrading to good architecture. See it as used by the speculative builder for fronts of houses, blocks of chambers, &c., and one's soul turns. At present it "catches" the public, and is in favour with the speculative builder; for ornament can be heaped on and repeated at a low cost. What will be the state of these "pretty and "elaborate" fronts a few years hence? Only the other day I stood aghast to see a "Queen Anne" front of a house being cemented over, because the ornamental red bricks, gables, strings, &c., were coming to pieces. The house had been "put up" by a speculative builder during the recent mania for "Queen Anne." If you want true lines for your arches, true lines for your string-courses, &c., you do not get them in terra cotta. On last Saturday a few of us went to see a building now being erected by a member of our Art Committee—the Institute of Chartered Accountants. (Cheers.) The arches, strings, and curves were in stone, and worked to beautiful lines. I wonder how the building would have looked in terra cotta. (Cheers.)

Mr. ASTON WEBB [*F.*].—Sir, it is too late for me to keep you more than a few minutes, but as I am here I should like to say one or two words. Mr. Ingress Bell seemed to me to put the case for terra cotta and the advantages of using it in the best possible way, and I could not possibly strengthen what he has so admirably said. But in considering what has been said against terra cotta, one of the principal objections which Mr. Stokes raised was its want of durability. He certainly skimmed this objection over rather lightly, though it is of the first importance; but I think if Mr. Stokes, in his fortnight's peregrinations, had come across a building which was really seriously decaying, we should have had a picturesque account of it; but he drew no such terrible picture. I think, therefore, we may take it that he did not find one terra-cotta building that had seriously decayed. Then he spoke of its construction, and the concealment of construction. There is no doubt that in the use of terra cotta a good deal of construction is concealed; but I know very few buildings put up in the present day in which a large amount of construction is not necessarily concealed. It sounds well, and it used to be said at the Architectural Association twenty years ago that your construction must all be truthful, and must all be shown; and it may be a very good theory that it should be, so far as possible. But it cannot be carried out. Take that charming little stone front that Mr. Stokes referred to in Cockspur Street; there is a long lintel on the opening, and there must be something behind it that I cannot see, but I doubt not it is an iron girder. (Laughter.) The eminent men that Mr. Stokes has mentioned—and I yield to no one in my admiration of their work, or in my readiness to acknowledge their superiority—have most of them, from time to time, adopted means for the concealment of construction. I can think now of cases where apparent oak beams contain in their centre rolled iron joists and girders; yet these things do not detract from the pleasure and

delight that we have in their works. Possibly we might wish that it was not necessary, but the complication of our buildings, I would contend, makes it almost impossible for us to absolutely avoid this concealment. Then another point, which I think was not made the most of by Mr. Stokes, is that it is contended by many that stone is not a material which can be used in many of our cities with the perfect success which he seems to imagine, and that in many cases terra cotta is coming to be used where it has been found that the city atmosphere decayed the stone. Mr. Brydon says, "Fancy bringing terra cotta to "London from ever so far off," and in the next breath he recommends Bath stone. Surely it is as far to bring Bath stone as it is to bring most of our terra cottas. I cannot see much difference in this respect between the two. The plain question is which will stand the best; and that is the great question for architects to decide—and that is the use of a Meeting of this sort. I quite agree that it is more desirable that we should notice, and notice most closely, the buildings built in terra cotta, and ascertain most minutely the effect of weather upon them. We are trying to use a new material, and we make mistakes; but we are trying to find out where the mistakes are, and the manufacturers are trying to help us by doing the same and improving their manufacture, and, if they find it does decay, to ascertain the reason and try to prevent it. But terra cotta certainly has this advantage, and this is much to the point, that its surface is cleansed, shower by shower, in a way that we hope will keep off the acids and smoke which undoubtedly ruin stone. This also applies to interiors. Take the interior of a church, we will say. There is one in my neighbourhood built of stone internally, and this stone has got into such a terrible state—greasy, black, and dirty —that it is now whitewashed, and will have to be rewhitewashed every few years, that being the best thing they can think of doing to it. Well now, with a terra cotta interior, you can turn on a hose and wash it clean and bright once a year, and if you take that trouble you can keep this grease and dirt out. There are, of course, disadvantages in every material, but this is one of its advantages which should not be lightly put aside. Then, as regards durability of stone, one could go round London and point out church after church built of Bath stone which is disintegrating. Of course, one is always referred to the Grosvenor Hotel; but that is the principal building that I am aware of, built of Bath stone externally, that has stood in London. I consider that to talk of the durability of Bath stone in great towns is simply misleading the young. Then, I quite agree that nobility in architecture is a thing to be striven for, and is a noble thing when attained; but is the other quality of picturesqueness to be altogether overlooked? The North Italian buildings that Colonel Edis has spoken of are eminently picturesque, and this world would surely be the poorer without them. We may prefer the Parthenon without sneering at Henry the Seventh's Chapel. Therefore, I think that this material has advantages which we should endeavour (groping, it may be, in the dark at the present time) to make an honest effort to use appropriately. One stone building was mentioned—the Banqueting House at Whitehall. Does Mr. Stokes know that this was entirely refaced at the beginning of the century, although it was built of Portland stone? Of course, we know there is no absolute permanence in any material. In Birmingham, at the beginning of the century, several new churches were erected, three or four of the towers of which are being rebuilt to-day. They were built in stone, and had come entirely to grief. Therefore, it is not only terra cotta that fails. I am not, however, pleading for terra cotta; I would merely try to emphasise Mr. Bell's point, that it is a new material in which we may obtain new effects, and that, for certain buildings and on certain occasions where difficulties prevent the use of stone, it is not a material which should lightly be put aside.*

MR. LLOYD EDWARDS.—Mr. President and Gentlemen, I think that my side of the question, if I may so call it, has been much more ably put by Colonel Edis and Mr. Aston Webb than any words of mine could do. But there is one point that I should like to mention. I listened to-night with a very great deal of interest to what has been said, and I have not only listened, but I have learnt a great deal. I have learnt what is sometimes the advantage of giving a quotation. I may perhaps tell you the history of a certain quotation. We had an application about a week or nine days ago—this was during Mr. Stokes's fortnight's peregrinations—for prices of terra-cotta work, "something similar to the Constitutional "Club." (Laughter.) Mr. Stokes did not give us any drawings, and did not lead us to suppose it was wanted for any other purpose than simply to give a rough idea of what the terra cotta could be produced at. Well, Gentlemen, I think, speaking as a manufacturer to you as architects, you will know that that depends entirely upon the architect's design; it is no use his asking me to give him a price for terra-cotta work unless he

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* My surveyors, Messrs. Corderoy & Selby, have kindly supplied me with figures of the comparative cost of terra cotta and stone, from tenders we have received during the last four or five years. I had not time to give them last night, but give them now, as they vary considerably from other prices give —

Terra cotta, external and internal, including filling, hoisting, setting, and modelling	6*s.* 7½*d.*	per foot cube.
Terra cotta, external . .	6*s.* 9*d.*	,,
Terra cotta, internal (with much plain ashlar) . .	5*s.* 10*d.*	,,
Portland stone, externally fixed, complete, including carving	8*s.* 4*d.*	,,
Bath stone, internally . .	6*s.*	,,
Portland stone front, including carving	8*s.* 9*d.*	,,
Portland stone, more elaborate, and without competition .	10*s.* 2*d.*	,,

A. W.

sends me some description or quantities. [Mr. STOKES.—I sent you the Constitutional Club.] But allow me to state that, as against the guess-work price I quoted Mr. Stokes, he gives you prices for work which has been carried out in stone, and of which he knows the actual cost. Of course, it would be mere guess-work on my part what his own design would be like, and what it would cost to carry out. I do not want to detain this Meeting, but there is one point I should like to mention, speaking as a manufacturer, and I think great stress may be laid upon it. Two of the speakers to-night have mentioned —and I think Mr. Stokes also said something about it—that terra cotta carried out in Italy in the old days, and also in some parts of England, was made in very small blocks, and made almost solid. Now, Gentlemen, I am not an advocate for big blocks in terra cotta, and I am not an advocate for terra cotta being used anyhow, or in imitation of stone, or instead of stone, or perhaps because it is cheaper than stone. I believe that terra cotta is better made in small blocks. I believe it is a material which was meant to be used in that way. (Hear, hear.) And I believe strongly that in the days to come (they are beginning now) terra cotta will have a treatment of its own. At the present time architects, if I may say so without being considered impertinent, do not pay sufficient attention to the design which they wish to carry out in terra cotta, and hence we see the supposed abortions which have been quoted to-night by Mr. Stokes (laughter). Seriously, I think they are abortions because the architect of them, or of it (I should say I am speaking of one in particular), did not recognise that he was dealing with a special material; he tried to carry out in terra cotta a stone building, and as long as that is done you will never have success in terra-cotta work. Mr. Aston Webb is one whom I am very proud to recognise as an advocate of terra cotta in its proper place. I know of no architect who pays so much attention to the material in which he is working, and I think you will all admit with me that that attention has been thoroughly well repaid in a building in Birmingham, which will ever be associated with his name, and that of Mr. Ingress Bell; and which must always be cited as a successful example of the correct way in which to treat the material.

The President then made a few observations, and the vote of thanks was passed by acclamation.

MINUTES. IX.

At the Ninth General Meeting (Ordinary) of the Session, held on Monday, the 27th ult., at 8 p.m., Mr. J. Macvicar Anderson, *President*, in the Chair, with 31 Fellows (including 10 members of the Council), 42 Associates (including 3 members of the Council), 2 Hon. Associates, and 24 visitors, the Minutes of the Eighth General Meeting (Ordinary) held on the 13th ult. [see p. 191 *ante*] were taken as read and signed as correct.

The decease was announced of the following Fellows, namely:—William Allen Boulnois and John Myrie Cory (Shanghai).

The following candidates were recommended for admission: As FELLOWS [F.R.I.B.A.], Rhodes Calvert (Bradford), Joseph Pilling (Bolton), Alfred Edward Purdie, Thomas Butler Wilson (Leeds and Harrogate), John Henry Woodhouse (Manchester), George Harry Willoughby (Manchester), Jesse Horsfall (Todmorden), and Edward Hewitt [*A.*] (Manchester); as ASSOCIATES [A.R.I.B.A.], Alfred Ryshworth Hill, Edmund Herbert Child, and William Edwin Johnson.

The following Associates, attending for the first time since their election, were formally admitted and signed the Register, namely:—William Henry Burt, John England Jefferson, and Arthur Heron Ryan-Tenison.

Papers on Terra Cotta were then read by their respective authors—Mr. E. Ingress Bell [*A.*], Mr. S. H. Leech (of Messrs. Doulton & Co.), and Mr. Leonard Stokes [*F.*]. In the discussion which ensued Dr. A. S. Murray, F.S.A. [*H.A.*], Sir Henry Doulton, Mr. J. M. Brydon [*F.*], Mr. C. Forster Hayward, F.S.A. [*F.*], Colonel R. W. Edis, F.S.A. [*F.*], Mr. James Neale, F.S.A. [*F.*], Mr. Aston Webb [*F.*], and Mr. Lloyd Edwards (Ruabon), took part, whereupon it was

> Resolved, that the thanks of the Institute be recorded to Mr. E. Ingress Bell, Mr. Leonard Stokes, and Mr. S. H. Leech, for their Papers respectively; and also to those manufacturers who have sent specimens of Terra Cotta, namely:—Messrs. Doulton & Co., Messrs. Edwards & Co. (Ruabon), Messrs. Gibbs & Canning (Tamworth), and The Burmantofts Company, Ltd. (Leeds).

The business having thus terminated, the Meeting separated at 10.40 p.m.

The Futility of Examinations!—Mr. T. G. Jackson, A.R.A., M.A.Oxon., architect, in an article on "Architecture—a profession or an art," published in this month's *Nineteenth Century*, which is edited by another architect, spells the name of the author of *Indian and Eastern Architecture*, "Ferguson." The missing letter is doubtless the identical "S" recently found attached, by Mr. Labouchere's Linkman, to the name of the Brothers Adam.

An Improved House of Commons.—Mr. Charles Barry's article and its illustrations in the current *Nineteenth Century* treat of a problem no less important than that of seating 670 gentlemen on a site which in his father's lifetime it was thought need accommodate but 430, that is to say, 306 on the floor of the House and 124 in its galleries. He proposes to increase the present House laterally, whereby none of the traditions of the House would be interfered with, and whereby the communications with other departments which now exist would be preserved. Mr. Barry further states that his proposal can be executed without interference with sessional business, and without any necessity for the erection of a temporary building to enable the business of the House to be carried on as usual during its reformation.

No. 9, Conduit Street, Hanover Square, London, W.

PROGRESSIVE TESTS OF PROGRESS. It is a commonplace that the object of Examinations is to test knowledge; but it is worth repeating and insisting upon, for the bad name of Examinations is due to the neglect of the principle it expresses. The public—I don't mean only the juvenile public—rather fight shy of Examinations, and their fears are grounded upon the unfortunate fact that a large proportion of the Examinations of to-day miss their aim by testing, not a young man's knowledge, but the contents of his memory at a particular moment. The Institute has realised that in Architectural Examinations it is of prime importance that the tests employed should gauge as far as possible the very basis of a candidate's knowledge, and it is in pursuance of this principle, not merely in imitation of the Legal and Medical courses, that it has established the system of Progressive Examinations. Not content with insisting that knowledge rather than memory shall be tested, the Institute goes a step further, and attempts, as far as possible, to scrutinise the very education of the candidate. It may fairly be claimed for the single Examination for Associateship, which still remains in force, that it is one for which it is unusually difficult to "cram"; or rather, to put the matter in another way, it is very unlikely that a student will impress upon his memory for purposes of that Examination any facts which are not of vital and necessary interest to an architect, or that he will impress them in a merely transitory manner. The newer Progressive Examinations aim at approaching still nearer to the ideal, and they have been so arranged and distributed as to form a means of investigating, not merely the results, but the course of a young architect's studies.

The first of the series, the Preliminary, is intended, in the words of our KALENDAR, "to test the general knowledge of aspirants in ordinary subjects of school education," and in such special studies as elementary mechanics and physics, geometrical drawing, perspective and freehand drawing, which, though belonging particularly to a young architect's training, can generally be acquired during an ordinary school course. In theory, this Examination asks of a young man those very questions which an architect would put to him before admitting him to articles of pupilage. It says to him: "Have you, in the first place, received an average public school or grammar school "education; and have you, further, given some attention to the preliminaries of your "special training? Have you an eye and a hand suited to draughtsmanship, and have "you begun to practise that hand and eye?" Such an architectural master would further ask: "Have you any drawings you can show me?" and this the Examination also does. For the candidate will either have in the course of the Examination to produce certain drawings, or, if he claim exemption from the purely scholastic part of the Examination (to which he is entitled if he hold a matriculation or other certificate), he is called upon to submit specimens of his already executed attempts at freehand and geometrical drawing and perspective.

It will be seen, then, that the Preliminary is what its name suggests, the simplest possible enquiry into the rudimentary fitness of a young man for the profession and art of architecture.

Leaving the Intermediate Examination out of consideration for the moment, it may be remarked that the Final Examination, which has never yet been held, occupies to a large extent the scope and position of the present "Examination qualifying for "candidature as Associate." It is not *identical* either in the ground it covers or in the standard it demands, for it is naturally to be expected that the man who has passed through the systematic course of study regulated by the two earlier Examinations will be capable of, and perhaps even eager for, a test at once wider and deeper than that which has hitherto been applied to applicants. Apart from the additional requirements in the Examination proper, it will be found that a more extensive collection of probationary work is demanded of the student. He is called upon to submit, not merely as in the present Examination, a simple design to ⅛-inch scale, a perspective view, a detail drawing and a freehand study, but also a shaded drawing of some classic subject, an additional perspective sketch, a measured drawing, and four sheets of constructive details in carpentry, masonry, &c. Further, he is expected to furnish documentary evidences in the form of note and sketch books that his training has brought him into contact with bricks and mortar as well as pencil and paper. A long list! Yes, it is a long list, and for this reason: a long list takes a long time to work through, and it is the aim of the Examiners to induce, and if they cannot induce, to force the applicants to begin early and to study long. The Testimonies of Study are, to paraphrase the expression, witnesses of application on the student's part. They are not merely tiresome preliminaries, but both incidentally and actually one of the best means of preparation for the Examination proper. The man who sighs at their multitude is in danger of ignoring a dictum about art and life which need not here be repeated, and it may easily be represented even to those who feel that the amount of "Testimonies" required is a heavy tax, that their very number gives to the student a cogent reason for beginning his studies early and continuing them zealously—that, in fact, it induces the very course of training most desirable.

It is evident that, since the proposed Final Examination is but an enlargement of the present Qualifying Examination, and since the Preliminary covers little more than the acquirements with which most architectural aspirants are equipped on leaving school, the Intermediate Examination is the salient novelty in the new system. A young man after passing the Preliminary Examination is styled a *Probationer* of the Institute, and after a period of not less than two years he is eligible, if his Testimonies of Study are approved, for entering the Intermediate Examination, which, if passed, will secure him the title of *Student*. Here again the "Testimonies" are regarded as of prime importance, and they consist in this case of seven sheets of various features of Gothic and classic architecture, a "description" which will give some insight into the candidate's intelligent grasp of the subjects with which his pencil has thus dealt, and four sheets illustrating certain important principles of construction in various departments of work. I need not here detail the exact work required, as the list is to be found in the pages of the KALENDAR. The Examination itself, "written, "graphic, and oral," occupies three days, the first of which is taken up with the history and details of the various styles of architecture, the second with scientific and constructional questions, while the third is devoted to the *viva voce* test. It is to be noticed that in this Intermediate Examination the applicant is not, as in the present single Qualifying Examination, expected to have given special attention to a particular style, but may be examined in the general characteristics of any of the principal periods of the art.

The opponents of Examination in general and of the architectural examinations in particular may approach us with two charges to which happily there are two conclusive answers. They may say that it was bad enough to have an examination in architecture at all, that we made matters worse by turning our voluntary examination

into an obligatory one, and that by making our single examination into three we have first tripled the examination-evil, and, secondly, raised a barrier of such a formidable character that young men will practically be unwilling to submit to it. The second of these charges is met by facts, for though the single examination is still in force no fewer than 476 applicants have been admitted, between 1889 and the close of 1892, to the Preliminary Examination; and 77 Probationers have been admitted to the Intermediate. During the period named 438 have passed the Preliminary stage and qualified as Probationers; and 54 of the 77 Probationers admitted to the Intermediate stage have been registered as Students. For the Preliminary Examination to be held this month there are more than 100 new applications, and 35 Probationers have applied to be admitted to the Intermediate Examination. As to the other charge, I hope I have sufficiently explained the true nature and motive of the examinations as to show that, paradoxical as it may seem, the substitution of three examinations for one has really lessened, not multiplied, the evil which is the root of all the genuine objections to examination. It has been the sincere endeavour of the promoters of the threefold scheme to establish a series of tests, which shall, while encouraging a course of study both sound and gradual, utterly discountenance and, indeed, render impossible the iniquitous and deceptive process of crowding a half-formed mind with a surfeit of undigested scraps in the hope that it may vie with others in the humiliating contest of discharging them before an Examiner. Processes and contests such as these bring disgrace on the name of Examination, and in them we will have no share.

PAUL WATERHOUSE.

MR. A. E. STREET ON DESIGN.*

"When I hear our architects," says the oft-quoted Montaigne, "mouth out those big and "ratling words of Pilasters, Architraves, Cornixes, "Frontispieces, Corinthian and Dorick works, "and such-like fustian terms of theirs, I cannot "let my wandering imagination from a sodaine "apprehension of Apollidonius his pallace, and I "find by effect that they are the seely and de-"cayed pieces of my kitchen-doore."

Montaigne was common-sense personified, and gifted with that sort of perspicacity which makes his criticism valid for all time, and it is good for us to know how the hyper-professional attitude struck him, that seeming desire—if it is not a real one—to create a shibboleth, to make something of a trade secret of what is intelligible to any cultivated taste. But, to look at the same failing in another aspect, I do not know what may be the experience of others—but I have frequently been confronted in the intelligent world of Art with a feeling of resentment not more at the rigid adherence of a modern building to an old model, when there was no special suitability to suggest it, than at its being deliberately labelled with the name and title of the type to which it conforms. For an architect to bind himself hand and foot to the rigid exercise of one style, no matter how varied the requirements he has to fulfil, if it is to cultivate dexterity at the sacrifice of the taste, judgment, and discrimination which a more liberal appreciativeness or a less cautious attitude will keep in constant activity, is, at least, a course which has its merits, and claims our respect; but for the same man to say—Now I am going to design in the Perpendicular style, now in the Jacobean, now in that of Henri Quatre; to work professedly under several recognised sets of conditions, adhering blindly to precedent in each, and following the model with academic scrupulousness—in a word, to be on terms of distant acquaintance with all, and familiar with none—does, indeed, seem the way to quench the spirit and leave nothing but the dry bones for our delectation. "Warnut I says, and I ups and gives it a twiddle "this way." It is nothing but the attitude of the shoddy wood-grainer writ large.

I take it that no self-respecting man is consciously satisfied with the paste-and-scissors method of design, however nearly he may approach it in actual practice. Even those who are least generously endowed by nature, or most conscious of their own deficiencies, feel that they have something within themselves, which it would be a satisfaction to them to put into their work. Originality is a wide and vague term, but, at least, it conveys to most of us an idea sufficiently definite to admit of our aiming at it, and that it should be invariably made our object I do not doubt.

There seems to me absolutely nothing of real interest in a work which is simply free from solecisms and mistakes, in which all the virtues are negative, which is devoid of character and life in much the same way as the typical head which is produced by photographing one over another—where every feature is the mean between a variety of extremes. It is better to have fought and lost than never to have fought at all: it is better, vulgarly speaking, to have come an artistic cropper

* Extract from a Paper by Mr. Street on Originality and Individuality in Art. Read before the Architectural Association on Friday, 24th ult.

on one's own account, than to have skated about all one's life on the architectural ice leaning on the chair of convention.

I believe, then, that an independent and self-reliant attitude should be a condition precedent to all design, but I deprecate the encouragement of purely visionary aspirations for novelty. Only the other day I read in what should have been a sober publication, as it was an official one, a warm commendation by one Frenchman of the following rhapsody by another—M. Vitet. "Never," says the latter, "never in the world has an art been "produced twice in the same guise; or, if it has, "it was a mere trade the second time, and not an "Art. Honour to those who even in our own "day do not despair of inventing a new architec-"ture. . . . Let them draw their inspiration "neither from the forms of antiquity, nor yet from "those of the middle ages, but let them be im-"pregnated with the sentiment of a master-"thought—the thought of an artist, not an "archæologist."

There is a great fallacy in this aspiration, to start with, and one which has been exposed before now, and that is the assumption that the intellects of a new cycle must always approach a problem from a new point of view. The real truth is that the same class of mind in any age will always approach a problem in the same way and arrive at kindred results. Signal novelties in thought, we are told, are as limited as signal inventions in architectural construction, and *vice versâ*. The Rousseau of the "Social Contract" and "Emilius" was, to take one example, in close touch with the Spartan Lycurgus, or with the society which that name represents; his nature led him to approach a problem which he believed to be identical in a way which was identical actually. Classification, in a word, should not be made according to dates, but according to the nature of the thinkers, for that there should be a recurrence of ideas in similarly constituted thinking machines, is at once natural and the fact. Again, to tell one to lay violent hands on a master-thought, unless it is some one else's, is about as reasonable as to tell one to inherit £10,000 a year, or to suggest that one should become Archbishop of Canterbury; master-thoughts are not so easily come by, and still less if the master-thoughts of past generations are to be a dead-letter to us; we must all, too, have been archæologists in our degree, or we shall find when we sit down to the desk that the teeming visions of an exalted fancy are all too ethereal for the sober process of transmission to drawing-paper.

In saying that the meaning of originality is generally understood, I am not blind to the various glosses which ignorance or self-conceit puts upon it, nor, in suggesting it as an aim, do I mean that the young designer is to set it up consciously as a thing to be won. Originality is a subtle quality, a fresh and natural sense of fitness, which bears no forcing, which to strain after is to put beyond reach. It cannot exist in the design unless it has existed first in the designer, because it is, in its real nature, an unconscious expression of the artist's own personality; a form of self-realisation—his way of viewing a thing, his way of seeing the possibilities and meeting the necessities of a given case, and no one else's. Nature breaks the mould, as has often been said, when she forms the man: individuals may approach or touch each other at points, but never all along the line. Each is an original piece of work himself, and his natural product cannot be less so; unfortunately for us, it is very easy to go the wrong way to work, and dam up the flow of our natural tendencies, or to carry them into an artificial channel, is the simplest thing in the world. This conscious craving to do something fresh, as formulated by M. Vitet, is almost fatal in itself, and the very air we breathe nowadays teaches us to be self-conscious and introspective; for better or worse, and mainly for worse, we have eaten of the tree of knowledge of good and evil, and the charms of innocence and simplicity are not naturally inherent in anything we produce. Stendhal's autobiography and Marie Bashkirtscheff's diary are only extreme instances of a common complaint, and nothing opens the eyes more thoroughly to the difference between the conditions which govern our work and those under which the masterpieces of our great predecessors were produced than the comparison of such morbid outpourings as these with the breezy simplicity of Cellini's life of himself.

If any proof were wanted of the need of an intimate conversance with old work, it would be found, I think, in the aid which it gives to facility in production, so that it is half unconscious; the tools, at least, are all to the craftsman's hand, and the thread of inspiration is not broken by petty interruptions. I do not like to think of limiting the scope of study in any way, but, at the same time, it seems clear that a man has been both better endowed by nature, and will be actually better equipped, whose preferences lead him to put definite bounds to the sphere of anything like exhaustive inquiry. In this connection, I make no apology for quoting from an essay by Mr. John Morley on "Literature," because literature is one of the Fine Arts, and the same critical faculty, if not the same productive, is concerned, whether architecture or English prose is in question. Mr. Morley has been speaking of the lists of the best hundred books with which we were flooded a few years ago, and he says: "To fill "a man with heterogeneous scraps from the "*Mahabharata* and the *Sheking* down to *Pick-*"*wick* and White's *Selborne* may pass the time, "but I cannot see how it would strengthen, "instruct, or delight. . . . . The steady work-"ing down of these lists would end in the manu-"facture of a prig." Now, as Mr. Morley goes on to say, "a prig has been defined as an animal "which has been overfed for its size." Priggishness in design is only too real a thing, and it is always marked by exaggerated self-consciousness; but I do not go so far as to say that it is inevitable, even where the designer, like a quick-change artist, appears constantly in a fresh character: it is only a shocking possibility.

A. E. Street.

SCIENTIFIC NOTES.

Metropolitan Improvements.

It is not always that sanitarians and architects go, as they should, hand in hand; unfortunately we are all very human, and would each like to emphasise our work, perhaps at the expense of the other; it is therefore very gratifying when both are pressing forward harmoniously to the attainment of the same ends. Dr. Poore, in his Paper on "London Fogs and the lessons to be learnt "from them," read at the Sanitary Institute on the 8th February, much enforced and extended the arguments contained in the Papers recently read at the Royal Institute on the Development of Great Cities and on London Improvements. In listening to the greater part of Dr. Poore's lecture one felt much encouraged and delighted to find in the field so powerful an auxiliary in the almost hopeless war against the inertia of use and wont, but his closing periods were very pessimistic, and we retired sadder as well as wiser. It is difficult to summarise a Paper so full of valuable matter, and I will not attempt it, but only recommend every one who is interested in the welfare of London to carefully read it.

Statistics without an intelligent knowledge of their components are very misleading, and are often ignorantly quoted with great unction by partisans of diametrically opposed interests. It is only when dissected and analysed by a master hand that the tale of mortality becomes a useful addition to knowledge. For instance, Londoners generally pride themselves that their death-rate is only 20·3, but Dr. Poore ruthlessly exposed, by a careful analysis, the unwarranted satisfaction occasioned by this oft-quoted figure, which has about as much to do with the statistics of the centre of London as with those of Timbuctoo. In the course of his lecture the learned Doctor could not refrain from occasional bursts of mockery; in one he exclaimed that if Malthus had lived in the Strand he might have joined the demonstration of the unemployed in Trafalgar Square, for it is manifestly unnecessary to dilate upon the evils of over-population in a place in which the deaths exceeded the births by 121 in the short space of three months. He also grimly remarked that he admitted it is not a matter of any great consequence whether the death-rate of London be high or low, and he felt confident that if its inhabitants were polled as to whether they would like a lowering of the death-rate or an increase of trade profit, they would choose the latter. Nevertheless, he held the opinion strongly that if a city is to be kept healthy its density must not be allowed to pass certain limits, and the building operations must be carried on in accordance with some principle by which a proportion is maintained between the cubic contents of a house and the area of ground it occupies.

It is this density of population to which, in the Doctor's opinion, the density and maliguity of London fogs are due, and he animadverted on the modern practice of building several houses one on the top of another, shutting out all chance of fresh air or sunlight gaining access. He stated that in a London street the air is practically stagnant and full of foul filth, manufactured or produced by the crowded inhabitants and their domestic and other surroundings.

It is not enough to cut broad streets and avenues through central London, unless accompanied by other remedial measures, and those who have any hand in the improvement of the development of our great city have a large and laborious task before them. Acts of Parliament relating to open spaces and lines of frontage have frequently been broken, because of the selfish inactivity of those who ultimately in their own persons, or that of their children, have to bear the penalty; and in any new Acts stringent measures should be taken to lessen ambiguity, to render all such breaches criminal, and to devise means whereby any infringements should be immediately detected.

It is not because sanitary science has been idle, but because London has grown out of population, and beaten it in the race, that matters have attained their present pitch. It is the assistance of improved sanitation and the removal of ancient restrictions which have fostered the too rapid growth. In the enumeration of possible improvements and preventive measures Dr. Poore showed that they were mostly attended by concomitant evils, until it seemed that the only salvation or crowning mercy for central London would be its entire consumption by fire, or its being dislocated and overwhelmed by an earthquake, after which we might start everything fresh, with model conditions as to open spaces, broad thoroughfares, and less height of building. Let us hope that, without either of these terrible catastrophes, central London may yet be rendered healthy and beautiful.

William Charles Street.

LEGAL & PARLIAMENTARY NOTES.

Smith *v.* Legg.

96, *Gower Street, W.C., 24th February* 1893.

Gentlemen,—It is regrettable that the heading in this case [see p. 192 *ante*], the report of which is copied from *The Times* into *The R.I.B.A. Journal* of the 16th inst., reproduces a fallacy that runs through the judgment of Lord Coleridge and Mr. Justice Cave, and is continued through *The Times* into our Journal.

Under the Act the respondent did not and could not claim any power to pull down, but only to rectify an irregularity proved to exist, and the proper heading should have been "Power "to Rectify a Building after Completion." This error of their Lordships might well have been pointed out in the subsequent remarks, as well as that other mistake which substituted the "Owner" for the "Builder" as the person against whom proceedings had been taken.

Unfortunately, this and some other decisions of Lord Coleridge cannot commend themselves to the judgment of any one who possesses both common sense and a familiarity with the Building Act; but it seems that that Act being a penal Act,

there is no appeal. It must therefore be taken that they decide only the particular cases in question, and are no authority in similar cases for the future. I am hoping to make some remarks on this and other cases decided by Lord Coleridge, and the reasons assigned by him for them, and pending this I refrain from further criticism on the judgment in the case referred to.—I am, &c.,

The Secretaries R.I.B.A. FREDK. WALLEN.

*** For the heading, "Power to pull down," which was inserted over Mr. Woodward's Notes of the case of Smith *v.* Legg, the Editor of this Journal is responsible, not the author of the Notes.

BURR *v.* RIDOUT.

This case, which adds another to the already long list of disputes as to professional charges, is somewhat fully stated in the report which appears below, taken from *The Times* of 22nd ult.

This was a case of some interest to architects and their employers, in cases in which, after plans and drawings have been ordered and prepared for buildings to cost a certain sum, and on tenders being obtained, the employer, finding the expense will far exceed that sum, throws up the work, the question being whether, in such cases, the architect is entitled to charge commission on the excessive expenditure he is unable to incur. In other words, whether (as Lord Coleridge put it towards the end of the trial), when a person asks an architect to prepare plans for a building to cost £4,000, and he prepares plans for one which will cost nearly £8,000, and which he cannot afford, the architect is entitled to charge commission on the £8,000, according, as was asserted, to the rules of the Institute of Architects. It was an action by an architect against his employer to recover £450 as his charges for preparing plans, drawings, &c., for certain buildings, for which tenders were obtained on those plans, but which were thrown up as too expensive. The defendant, an estate agent, had an agreement with Lord Cadogan, under which he was to build two houses on the Cadogan Estate at an expense of £4,000, the buildings being shops below, with "flats" above as residences. His intention was to erect the buildings at a cost of £4,000, and it appeared, and he was told, that it would be possible to erect such buildings at that cost, but of the plainest possible character. It was agreed that the defendant was informed of this, but it was asserted that he had agreed to plans more expensive. He began by employing the defendant to survey the site and take the levels, &c., and for this there was a charge of £15, not disputed and, indeed, paid into Court. The defendant then, in August 1891, desired the architect to inform him what would be his charges, in a lump sum, for preparing the plans and working drawings and specifications, and taking out the quantities (*i.e.*, of materials required), superintending, and other works incidental, as well as arranging for the mortgages, &c. The plaintiff replied that his fees for preparing drawings and specifications and superintending the work would be according to the scale of charges established by the Royal Institute of British Architects, which was produced and referred to, but did not, as defendant's counsel pointed out, contain any rule applicable where the work is thrown up. The rules are:—(1) "The usual remuneration for an architect's "services is a commission of 5 per cent. on the total "cost of the works executed from his designs." All the other rules imply that works are executed, as, for instance—(5) "The commission is reckoned upon the "total cost of the works valued as if executed by "a builder; 2½ per cent. is charged upon any works "originally included in the contract, but omitted in "the execution"; (6) "The architect is entitled "during the progress of the building," &c.; (7) "The "above charges do not cover services in surveying "site and taking levels, &c., or as to arrangements "consequent upon failure of the builder while carrying out the work," &c.; (8) "If the employer, after "having agreed to a design and had the contract "drawing prepared, should have material alterations "made, an extra charge should be made, unless such "alterations are rendered necessary by an unreasonable excess in the builder's tender beyond the "architect's approximate estimate"; (9) "If the "architect should have drawn out the approved design, complete with plans, elevations, sections, and "specifications, the charge is half the commission "upon the estimated cost; if he should, in addition, "have procured tenders in accordance with the instruction of his employer, the charge is one-half per "cent. extra." The latter rules were the only ones relied upon as applying where the scheme is thrown up before the building is begun. According to the case for the plaintiff these terms were agreed to, and he was directed to prepare plans and drawings. In the meantime the defendant desired to raise £2,000 by mortgage on each house, which would amount to £4,000, and his case was that the cost was not to exceed that amount; and it appeared that perfectly plain buildings might be erected for that sum, but that the drawings, &c., represented buildings of a far more costly character. When the tenders were received the lowest was over £7,000. But this was according to the designs prepared by the plaintiff, according to which the work was to be executed in the modern style, with terra-cotta fronts and every adornment inside and out, with all the latest improvements, electric lights, &c., and, as counsel observed, "everything that could render the buildings "handsome, elegant, and expensive." And the case for the plaintiff was that the defendant had from time to time seen the plans and drawings and approved of them. For the work as thus designed it was found on the lowest tender that the cost would be £7,000, and, indeed, the lowest tender was above £7,000. The defendant then said this was above his means, and he abandoned the enterprise. Upon this the plaintiff sent in his claim, which was disputed, and this action was brought to recover the amount. The defence was that the arrangement was only conditional upon the cost not exceeding £4,000, and that the plaintiff's plans had rendered the expense so much in excess as to be impracticable, and the work was of no use; but he paid into court £110 as a reasonable amount if anything was due at all. The plaintiff denied any instruction that the cost of the houses wa not to exceed £4,000, and alleged that his charges were reasonable under the rules. In the meantime the defendant had employed another architect, who had been paid £110, and under whom the buildings had been erected for £3,500.

Mr. Witt, Q.C., and Mr. Duke were for the plaintiff; Mr. Kemp, Q.C., and Mr. Brodrick for the defendant.

The plaintiff's counsel, in opening the case, said the terms, as fixed by the Royal Institute of British

Architects, in cases where the work was broken off, would be 2½ per cent. on the estimated cost, and if the work went on to the receiving tenders the charge would be ½ per cent. further on the lowest tender.

Lord Coleridge said he would not allow the Institute to dictate to juries what sum was to be paid for work not done.

Mr. Witt said his case was that these terms had been agreed upon, the defendant having been informed that the rules of the Institute would apply.

Lord Coleridge.—Unless there is clear proof that they were part of the contract I shall treat the rules of the Institute as mere waste paper.

Mr. Witt said he quite agreed to that, and proceeded to call his client.

The plaintiff stated that he at an interview with the defendant handed to him the rules of the Institute, as above stated, and the defendant, he said, accepted these terms and employed him on these terms. In September he prepared "sketch drawings," upon seeing which the defendant, he said, desired some alterations which would increase the expense. The defendant went through the plans and conferred with the surveyor about the expense, and wanted the cubic contents to be taken out, with a view to an approximate estimate of the expense. The plaintiff's clerk took out the cubic contents at 116,870* cubic feet, and at 6*d.* per foot the expense would be £4,000. But at 6*d.* per foot the building would be of the plainest possible nature, and the defendant himself said that for a building such as was intended he should think the expense would be 9*d.* or 10*d.* per cubic foot, on which the plaintiff said he told defendant that meant an expense of between £6,000 and £7,000. On 2nd December the defendant wrote that the plans had been approved by the Earl for the estate. Then, in January last year, tenders were advertised for, and defendant wrote for the quantities. Then the tenders came in, and the lowest tender was £7,560, including architect's fees, &c., but excluding them it would be £7,067. The defendant said that was more than he could undertake, and he threw it up and asked plaintiff to send in his account, and he wrote that "the price I had in my "mind was £4,500, including architect's fees, so that "there must be a great reduction;" and afterwards he wrote that the drawings, &c., were unfit for a speculative builder, and the plans far too expensive, and the materials too costly, and he also complained of delay, to which the plaintiff replied that they had all been explained to him and that he had approved of them. The plaintiff said he then sent in his account, the main items of which were—for preparing drawings and specifications, &c., 3 per cent. on £7,067 (£212), and for preparing a bill of quantities 2 per cent. on lowest tender (£141). Then there was a charge of nearly £50 for lithographing quantities, &c., £21 for preparing specification of alterations, £10 for surveying site, and some lesser items brought the amount to £450.

In cross-examination, he said he knew the defendant was a "speculative builder," but he did not tell him that the expense must not exceed £4,000. He believed, however, the defendant had entered into a building contract with Earl Cadogan for £4,000—that is, to expend that amount. Defendant showed him notes of a scheme he had already drawn out, and told him he had calculated for advances to the amount of £3,500. Asked what the 3 per cent. was charged for, he said it was for preparing plans and specifications and obtaining tenders. The estimated cost meant the amount of the lowest tender.

If you had told him that the buildings could be erected for £4,000, would not that be the estimated cost?—It would be my estimated cost. Did not your clerk estimate the amount at about £4,300?—No. Did he not estimate the cubic feet at 116,870, and at 9*d.* per foot would not that be £4,382?—Yes.*

He was then asked as to what passed when the defendant and he discussed terms, and admitted that the defendant had asked him to reduce the commission for quantities to 1½ per cent., but denied agreeing to that, and denied that it was usual.

The plaintiff's assistant was called to confirm his evidence, and stated that the defendant was told that, though the buildings might be erected for £4,000, they would be of the plainest possible character; and that the defendant himself suggested that a greater expense would be necessary to carry out his scheme.

Mr. Kemp, for the defendant, pointed out that the rules of the Architects' Institute did not contain one which was in terms applicable to the case which had occurred—that of the work being thrown up before it was begun. The question, therefore, would be what was reasonable in such a case. Now, the defence was based upon this—that the defendant, who was described as a "speculative builder," and to whom, therefore, the cost would be vital, had contemplated only an expense of £4,000, and that the plaintiff knew this, and was employed to prepare plans and drawings for such an expense; whereas he had prepared such as would involve an expense of over £7,000 (besides some hundreds for his own charges), which the defendant could not afford, and so the plans were useless to him.

The defendant was called as a witness, and gave evidence in support of this defence; and, according to his evidence, the cost of £4,000 was fixed from the first, and he had fixed the cost at per cubic foot at 8*d.*, which would come to £4,030. In November he sent the plaintiff his building agreement with Lord Cadogan, which was to erect two houses and expend £4,000. When the tenders were opened the lowest tender was £7,650. The plaintiff said, "We "must cut down tremendously." "But I," said defendant, "declared it was not a case for 'cutting "'down.'" There was a difference of thousands of pounds, and he came to the conclusion that the whole expense was so excessive and extravagant that it was hopeless, and he determined to begin *de novo*, and wrote to the plaintiff to tell him so. He went to another architect on March 9. The tenders were sent in in June; the lowest tender was——

This was objected to as irrelevant.

Lord Coleridge said it was on a different set of plans.

Mr. Kemp.—Just so. We had to employ another architect, because the plaintiff's plans were far beyond the limit of £4,000, and the plaintiff ought to reimburse us the expenses thus incurred.

Lord Coleridge.—The plaintiff's case is that your client, the defendant, from time to time had the plans altered at an increased expense.

Mr. Kemp.—Our case is that he was employed to prepare plans for a building to cost £4,000, and that his plans were useless.

The defendant stated he had paid the other archi-

* Stated to be inaccurately reported.

tect £110, and made no use of the plaintiff's plans and drawings. He denied any material alterations in the plans prepared by the plaintiff which would increase the expense.

Lord Coleridge.—Your case is that, from first to last, you limited him to an expense of £4,000?—Yes.

Lord Coleridge.—And that on his plans the buildings would cost nearly £8,000—between £7,000 and £8,000?—Yes.

Mr. Kemp.—That is the way I should put my case.

Lord Coleridge.—That is the case put shortly—"I ordered plans for a cost of £4,000, and you sent "me plans for an expenditure of nearly £8,000."

The Defendant.*—Just so. That is my case. I desired no alterations which would increase the expense, which I put at £4,000.

In cross-examination, the defendant denied making any alterations which would involve additional expense. As to the electric light, all he had authorised was putting up the wires in one house at an expense of £40 or £50. He had desired the work to be done well, but not luxuriously. From the first he had fixed 8*d.* per cubic foot, which would come to a little over £4,000.

In re-examination, he said the work had been done under the new architect, and well done, for £3,500.

Mr. Kemp, in addressing the jury on the evidence, said the question was whether, if a gentleman employed an architect to prepare plans for a building to cost a certain sum, and the architect prepared plans for a building which would cost double that sum, he is entitled to charge a commission on that excessive expense which his employer is not able to afford. The defendant had employed the plaintiff to prepare plans for a building to cost £4,000, and the plaintiff prepared plans for a building which would cost nearly £8,000, which the defendant could not afford, and got it done for less than £4,000; and the plaintiff now demanded a commission on the £8,000! Such a claim could not surely be sustained, and, if the plaintiff was entitled to anything, the sum paid to the other architect was sufficient—viz., £110.

Mr. Witt replied on the part of the plaintiff, and said the defence rested on this—that the plans were to be for a building to cost only £4,000, which, he said, was not consistent with much in the evidence and in the correspondence; for instance, a passage in a letter of the defendant's after the tenders—"an "expenditure of £4,000 was in my mind"—*i.e.*, only in his mind. The rules of the Institute of Architects were agreed to, and the only question was as to whether the half commission was to be charged on the £7,650. The plaintiff had done all that was to be done by the architect before the work was commenced.

Lord Coleridge, in summing up the case to the jury, said the defence rested on this—that the expense of the building was not to exceed £4,000. The defendant was bound by his agreement with Lord Cadogan to expend £4,000, and that was all he was bound to spend on the building. And it was not likely that he would expend £8,000; but the probability was that he would as nearly as he could keep to that sum, and not materially exceed it. And his case was that the plaintiff, his architect, knew this. If the employment was to prepare plans and specifications for a building which could be erected for £4,000, plans which would involve an expense of nearly £8,000 were certainly entirely different from what was desired, and the employer, said the defendant, might repudiate any obligation to pay for them. The case for the plaintiff was that the defendant saw the plans and approved of them, and had alterations made in them; that though an expense of £4,000 might have been mentioned, yet the general character of the drawings was such as could not possibly be erected for that sum; to which the defendant replied, "You knew from the first that I "did not intend to go beyond a sum of £4,000, and "if you prepared plans which you knew would entail "nearly double that expense, it is your own fault." Now, undoubtedly, architects did not strictly keep within their employer's limit of expenditure; and, on the other hand, the employer was easily induced to countenance an increase of expense here and there, upon such pleas as architects knew how to urge—"It will not cost much," "It is a pity to spoil the "house for the sake of a few pounds." This was human nature on both sides. But here, when the tenders came in, the expense, it was found, was near £8,000, and the defendant's letters did not look like a total repudiation. He wrote: "The price I had "in my mind was £4,500, including architect's fees, "so that a great reduction must be made." Could the defendant, then, entirely repudiate the employment of the plaintiff? If not, then it became a question what was reasonable, and that was for the jury to consider, and they would judge as to the various items of the claim. It was said that the Institute of Architects had settled certain charges, and percentages were charged on the estimated amount of expenditure. But a commission upon expenditure incurred was open to the gravest possible objection. A gentleman wished to build a house, and was willing to pay £50,000 upon it, and asked an architect to prepare plans for such an expenditure. His architect prepared plans for a house which would cost £150,000, and said, "Well, you may or may not "build it, but you must pay me, whether you do so "or not, commission upon £150,000, for the Institute "of British Architects says so." He confessed his legal soul fired at it, and he hoped that no British jury would ever yield to it, for it was a most unjustifiable attempt by a body of men for their own advantage and to increase their own emolument. The defendant was not liable to pay the percentages claimed unless he had agreed to do so. Had he so agreed? He told them distinctly that unless they were satisfied he had agreed to it he was not liable to pay it. If they thought the plans sent in would involve such an excess of expenditure beyond what was authorised that the defendant might repudiate them entirely, then they would find for the defendant. If they thought the sum paid into Court sufficient, then they would find for the defendant; if not, then for such sum as they thought reasonable.

The jury conferred for some minutes, and then asked whether the "quantities" had been taken out.

Lord Coleridge said they had been. [They were produced.] His Lordship again directed them—(1) That if they thought the defendant entitled to repudiate and reject the plans, &c., then they should find for the defendant; (2) that if otherwise, then they should consider whether the £110 paid into

* *The Times* reports this as "Plaintiff," which is obviously incorrect. Again, at the commencement of *The Times* report [p. 229 *ante*], where the clauses of the Institute Schedule of Charges are quoted, two or three omissions from the text of the Schedule occur.

Court was sufficient, and, if so, then also they should find for the defendant; (3) if not, then for the plaintiff for such sum as they should think reasonable beyond the sum paid into Court.

The jury, after a little more consideration, found for the plaintiff for £200, including the sum paid into Court—that is, for £90 beyond the £110 paid into Court—for which Lord Coleridge gave judgment.

Even with such a full report, it is, however, almost impossible to accurately gauge the case in all its bearings, and nothing short of an arbitration, with an experienced architect as umpire, could exhaustively deal with all the important details leading up to the dispute.

The trial has given the Lord Chief Justice an opportunity to renew his onslaught on the Institute and its scale of charges; but surely it should not now be necessary to remind his Lordship that there is no intention whatever on the part of the Institute to "dictate to juries what sum was to be "paid for work not done," nor does the course taken by the Institute justify the remark that he would, unless there was clear proof that they were part of the contract, "treat the rules of the Insti-"tute as mere waste paper." The "Schedule of "Practice and Charges" is stated at the head to be merely "sanctioned by the Royal Institute "of British Architects," and no one ever supposed its clauses to be legally binding on anybody, unless they were imported as part of a legally binding contract.

Much appears to have been made of the £4,000 mentioned in the building contract with the Earl of Cadogan; but it is quite understood by those who have had dealings with freeholders in such cases that the sum mentioned in building agreements is one which is nearly always very largely exceeded, and the sum is merely so inserted to secure that the new buildings shall not be of *less value* than is mentioned. So that, unless other circumstances intervened, this £4,000 does not necessarily have much real importance in such a case. We should know how the drawings and specifications grew up—whether the growth was clearly known to the client, and whether or not he acquiesced in that growth, awaiting the real test, the receipt of the tenders. The defendant said that he did not make any alterations involving additional expense, and his statement must be accepted as correct, but sometimes the building gradually grows up in expense with the knowledge of the client and architect, but without any specific record in writing, on either side, that it is so exceeding the original intentions. This, of course, shows the necessity of advising the client, formally, that his first idea of expenditure is exploded, and that he must be prepared for a much larger outlay. But it is not always that the architect himself knows, until the quantities are taken out, that the building will cost so much more than was at first thought, and what client would consent to pay for any trustworthy *intermediate* estimate being made? And so the work goes forward to the day of receipt of tenders, when surprise, trouble, and worry to both architect and client arise. There can be little doubt, on the other hand, that if a client binds down an architect, at the start, to a definite sum, beyond which he cannot afford to go, it is the clear duty of the architect either to say at once that the building cannot be done for the money, or to take all necessary steps to keep to the sum specified, or, at all events, to within a very narrow margin of it. To nearly double it is, no doubt, on the face of it, somewhat startling; but, as I say, all the details and correspondence must be read and understood before any adequate judgment can be passed on such cases. WM. WOODWARD.

*** Messrs. Law and Worssam, the solicitors who acted for Mr. Burr in this case, have written stating that the report of it in *The Times* [reprinted on pp. 229 *et seq.*] "omits material "points in the case, and is not altogether accurate "in so far as it goes."

[From *The Builder*.]

Why should a judge think it necessary to use such ostentatiously contemptuous language about it [The Schedule of Charges], and to inform the jury that, unless there was clear proof that they were part of the contract, "he should treat the rules of the Institute "as so much waste paper"? . . . Are we not correct in assuming that in many cases the law does recognise, and has recognised, such expressions as to professional custom as at all events an important element in deciding what are the fair claims of a litigant? . . . And again, surely, before telling the jury that the supposed support of the Institute of Architects to the plaintiff's claim, in the case under review, was "an unjustifiable attempt by a body of "men for their own advantage and to increase their "own emolument," Lord Coleridge might at least have taken the trouble to ascertain whether the Institute of Architects really did maintain such a position, instead of thus throwing an unmerited slur on an honourable body of men. Then again . . . what did Lord Coleridge mean by telling the jury that he "would not allow the Institute to dictate to juries "what sum was to be paid for work not done"? This latter expression is merely one of many instances which go to show that lawyers not only do not understand, but (as it appears to us) do not even endeavour to understand, the true principle and method of an architect's work and of the claims which he may rightly make for it. The $2\frac{1}{2}$ per cent. (in general prineiple and apart from the conditions of this particular case) is *not* for "work not "done"; it is for work *done*, and often the hardest part of the work, viz. the brain-work, the contriving, planning, and designing. Suppose a man commissions an architect to make plans for a large building, involving two or three months of labour, and then, for some reason entirely personal to himself, abandons his original intention of building; would the highest exponent of English law in that case maintain that the architect had not a claim, not only in justice but in law also, for payment for the heavy work he had done, merely because the client changed his mind at the critical moment?—25*th ult.*

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THE ROYAL GOLD MEDAL 1893.

In accordance with annual precedent, a Special General Meeting of the Institute met on the 13th inst., to elect, subject to the gracious sanction of Her Majesty The Queen, the Royal Gold Medallist of the year; and no name having been substituted by any twelve Fellows, according to the provisions of the By-law, for that of the gentleman nominated by the Council and announced to the general body of the Institute on the 13th ult., Mr. Richard Morris Hunt, of New York, was elected, by acclamation, for his executed works as an Architect.

The President, in moving the Resolution, said it appeared to him that, apart from Mr. Hunt's qualifications for the high honour it was proposed to confer on that gentleman, the nomination was a peculiarly happy one in view of the great exhibition at Chicago, with which Mr. Hunt's name was so worthily associated. The President intimated, moreover, that Mr. Hunt had, with great courtesy, forwarded photographs and prints of many of his recent works, an examination of which by the members of the Institute would, the President thought, confirm the high opinion already formed of his qualifications. Professor Kerr, in seconding the motion, said: "I think, at the "present moment, it is a particularly graceful tribute on the part of this Institute to "pay to the many eminent and enterprising architects who are practising in America. "I am afraid few of us understand how much good work is being done in America, "and how much original work of a high class—not always of the very best, of course, "but frequently so—and that is quite enough for us. Therefore I say the Council have "done exceedingly well on this particular occasion in recommending Mr. Hunt for this "honour."

A letter recently received from Mr. Hunt calls attention to a statement made in this Journal of the 16th ult. [p. 185 *ante*] to the effect that he declined the position of "Architecte du Gouvernement" in France. The error, he fears, has grown out of a misunderstanding about a certain design of which his *patron*, Lefuel, thought highly, and which led the latter to say that he would submit it to the Emperor Napoleon III., with the recommendation that the author of the design should be appointed to carry it out, which offer Mr. Hunt declined. Some particulars of Mr. Hunt's early career have been given in the *Semaine des Constructeurs*, and a flattering notice of his nomination for the Royal Gold Medal has already appeared in that Journal.

K K

PROCEEDINGS.

Monday, 13th March 1893.

Tenth General Meeting (Business).

[Mr. J. Macvicar Anderson, *President*, in the Chair.]

The preliminary business of the Meeting, including the election of new members, occupied but little time; and Mr. Woodward was early called upon to put the Questions which stood in his name, as follows:—

1. What progress has been made with the *Conditions of Contract* which, at the Meeting on 5th May 1892, Mr. E. T. Hall stated had been "sent to the Builders' Institute about Christmas "1889"?

2. What steps have been taken by the Council with reference to the Resolution passed at the Meeting of 16th June 1892, to "refer certain "questions contained in a Report [Election of "Fellows' Committee Report], which the Meeting "had adopted, to the Council to consider, and "then bring up again in a concrete form"?

3. What steps have been taken in view of the Resolution passed at the Meeting of 28th July 1892 (*re* Section 3 of the Charter), that "the "Council be instructed to take the whole matter "into consideration, and to report to the Insti-"tute, as soon as possible, with proposals as to "the best means of carrying out Section 3 of the "Charter?"

1.—Conditions of Builders' Contracts.

Mr. WM. WOODWARD [*A.*].—Mr. President and Gentlemen, my first question has reference to the Conditions of Contract, and it may be said that this is a revival of my "hardy annual." For the last two or three years I have made inquiries as to these Conditions, and I have no doubt that I shall be told that the subject is very important, that we must deal with it in a very delicate manner, and that these things cannot be got through in a hurry. Well, Sir, considering that Mr. Hall told us that the Conditions were sent to the Builders' Institute at Christmas 1889,—and therefore three years had elapsed when that statement was made in 1892,—and that after all the work only consists of revisions of the existing Conditions of Contract, I do think, Sir, that the time has arrived, unless it is the intention of the Committee that the Conditions shall be devoted to the use of their sons, when the matter should be completed for the benefit of existing members of the Institute. I therefore beg leave to ask what progress has been made with those Conditions.

Mr. T. M. RICKMAN, F.S.A. [*A.*].—Sir, till this afternoon I thought that a direct answer could be given with hopes of a speedy settlement to this question. It is true we have done our work over and over again, which is upon not a mere revision of old terms of contract, but upon a new form of contract altogether. We have made great progress in arranging with the Institute of Builders. But, as I am now informed as to the position of the negotiations, I fear that if I gave further information to the Meeting at the present time,—as the Practice Committee and those who represent the Institute of Builders are in frequent communication together,—I should be anything but assisting the negotiations which are still in progress. I do not think it will be very long before we are able to report as to the real state of affairs; but at the present time, notwithstanding your long forbearance, I must ask you to forbear a little longer until we are able to say precisely how the matter stands. (Hear, hear.)

2 and 3.—Resolutions of the Institute 16th June and 28th July 1892.

Mr. WOODWARD [*A.*].—Sir, Question 2 has reference to the Election of Fellows' Committee Report, what is known as the Blackball Committee. The idea of the Committee was to get rid as rapidly as possible of the opportunity which existed then to blackball, as was thought, without sufficient reason, those who come up for election at this Institute. In the Meeting of June 1892, it was decided to refer certain questions contained in the Election of Fellows' Report to the Council to consider, and then bring up again in a concrete form. That was June 1892; this is March 1893, and it does occur to me that it might be convenient if the Council would kindly inform us what steps, if any, have been taken in reference to the Resolution, and how soon we shall be likely to receive the Council's report on that Report.

The PRESIDENT.—I will take the liberty of answering Mr. Woodward's question and the one succeeding it together. The same remark will apply to both. Mr. Woodward has pointed to the period that has elapsed since the matters referred to in his questions were delegated to the Council. It is none too long on matters of such importance. They have received the very careful consideration of the Council. The reply to the question is a brief one: that on the 27th instant a Special General Meeting of the Institute will be held, of which you will duly receive notice, for the special purposes of considering the proposed alteration of By-laws with regard to the first question, and the Report of the Council in regard to the qualification of Fellows.

Nomination of Royal Gold Medallists.

Mr. WOODWARD [*A.*].—Sir, I wish to direct attention to the system at present adopted with reference to the nomination under By-law No. 64 of proposed recipients of the Royal Gold Medal, and to request the Council to consider the desirability of altering the By-law referred to; and also to direct attention to the report in *The Builder* of the Meeting of 13th February 1893, and to the remarks made in such report on the observations of an "Associate-member" with reference to the award of the Royal Gold Medal. I ask, Sir, that upon this occasion, as on the previous occasion on which I spoke on this subject, it will be understood I am not referring in any way whatever to the nomination last made by the Council. By-law 64 commences in this way: "In the case of "a Royal Gold Medal the Institute shall announce "to the Members at a General Meeting at least

"four weeks before the Special General Meeting "at which the Election is to be made, the name "of the person they propose to submit to Her "Majesty as a fit recipient for that honour." The by-law finishes with these words: "In any case "the award shall be by resolution of the Royal "Institute." Now in the *Journal* of the 16th ult. we have a copy of a letter written by Mr. Hunt, where he refers to a communication made to him in December 1892. That clearly shows that the communication was made to Mr. Hunt before the first nomination of the Council was submitted to this Meeting. That communication, to my mind, was not justified at all by the by-law, and at some future period possibly some awkward circumstances will result from such a course of procedure. For example, after the very heartfelt gratitude expressed by Mr. Hunt at the communication which had been made to him, do you not think, Sir, that it would be ungracious, that it would be invidious and unfair, to propose another member of this Institute as the recipient of the Medal in place of the nominee of the Council? Therefore, Sir, it comes to this, that the nomination—the election, rather—is practically in the hands of the Council. Whether or not that is considered desirable is not the question at this moment; but my opinion is that the course of procedure should be reversed: that in the first instance the Council should nominate the proposed recipient; that the nomination should be brought before this Institute for consideration, and that it should be subsequently brought forward as provided by the by-law. After that would be the proper time to communicate to the proposed recipient what would then be the unanimous decision of the Institute to grant the honour which has been proposed to be conferred. There is no provision made in the by-law for the proceedings which the Council hitherto have adopted, not only in this instance, but in many previous instances, and I think it would be far better if the Council would confine themselves strictly to the terms of the by-law, and make communications to this Institute before communicating with the proposed recipient. (Hear, hear.)

THE PRESIDENT.—I think the action which has always been taken in regard to this matter is obviously the right one. I do not at all agree with the view expressed by Mr. Woodward. The by-law declares that the Council at a specified time shall announce the name of the person they propose to submit to Her Majesty as a fit recipient of the Royal Gold Medal. It would be manifestly wrong to propose the name of a recipient without ascertaining from him in the first instance whether he is willing to accept the honour. (Hear, hear.) In justification of this view I may refer to more than one instance in my experience of gentlemen who, when asked by the Council if they would be willing to accept the Gold Medal, had declined. The awkwardness of such a situation would be very much intensified if the course Mr. Woodward suggests had been adopted. I therefore should not recommend the Council, with all deference to Mr. Woodward, to reconsider the by-law. Possibly in the present instance I was a little premature in reading Mr. Hunt's letter at the Meeting at which his nomination by the Council was announced, and it would have been perhaps more in order if I had read it at this Meeting instead of then. In regard to the next point, I propose to anticipate Mr. Woodward. He wishes to direct the attention of the Institute to a report in one of the professional journals, in which a reference was made in regard to the action of an Associate at one of our meetings. It does not come within the province of this Institute to take note of what the editor of any professional journal chooses to say with regard to any of us. If the editor of a professional journal chooses, for example, to say, in his discretion, that the President had behaved in an unseemly manner which was much to be regretted, it would be perfectly within his discretion to do so. I should be the last person in the world to take exception to it. Therefore, with all deference to Mr. Woodward, I shall not allow him to refer to this matter, and I will ask him to be kind enough to pass on to the next.*

THE LAW OF "LIGHT AND AIR."

The Report, prepared by the Science Standing Committee, upon "Light and Air," and submitted to the General Meeting, contained the following proposals or suggestions:—

1. That the owner or occupier of any tenement, who considers that his ancient lights will be or have been interfered with by the erection or proposed erection of new premises or alterations to old ones, shall have the right to inspect the drawings which shall be prepared by the building owner of the premises which cause such interference, and take such particulars therefrom, or from the building itself if erected, as may enable him to ascertain whether there is ground for complaint.

2. That if such neighbouring owner or occupier consider that the lights of his premises will be interfered with, he shall, within seven days from obtaining such particulars as above, give notice of his objection to the owner of the premises erected, or in course of erection or alteration (hereinafter called the building owner), together with the name and address of a surveyor, who shall have power to act on his behalf.

3. That upon receipt of such notice the building owner shall acknowledge the said notice, and inform the person from whom he received notice of the name and address of his surveyor, who shall also have power to act on his behalf.

4. That such two surveyors above stated shall, within seven days from the receipt of the last-mentioned notice, meet and discuss the objections taken to the work proposed to be or already executed by the building owner, with a view to settle such differences, and in the event of their not agreeing they shall refer the matter in dispute to an umpire, being a member of the Royal Institute of British Architects or of the Surveyors' Institu-

* The fifth matter of which Mr. Woodward had given notice is recorded in the Minutes (p. 243).

tion, who shall view the site and buildings, and take such evidence as he may think necessary, and make an award, which shall determine either or all of the following, viz.:—The right of the building owner to carry out his intended works, the alteration (if any) necessary to be made in carrying out the proposed new buildings or alterations to prevent or lessen the obstructions, and the amount (if any) of compensation of every description to be made, the alterations or improvements to the adjoining premises by light-reflecting surfaces or other means, the amount of costs to be paid by each or either party, and, generally, all matters required to arrive at a settlement.

5. That in the event of either party neglecting to appoint a surveyor within the time before prescribed, or the unwillingness of the umpire appointed to act, and no other umpire being agreed upon, that either party shall apply to the President for the time being of the Royal Institute of British Architects, who shall appoint an umpire with all the powers as before described.

6. That in the event of either party refusing to accept the award, he shall have power, within one month from the publication of the said award, to appeal to a tribunal composed of experts, consisting of seven persons—two of whom shall be Barristers, three Fellows of the Royal Institute of British Architects, and two Fellows of the Surveyors' Institution—three of whom shall act in each case, one of such three being a Barrister. Such tribunal shall decide as to whether the award is sound and equitable, or to so modify it as in their opinion may be necessary, after hearing evidence, with or without viewing the buildings; and they shall have full power to determine the way in which the new building or alterations to the old building shall be carried out; but if either party be dissatisfied with the sum awarded as compensation, he shall have the right of appeal to the High Court.

7. Provided always that a proper undertaking to pay the costs and expenses incurred in delaying the work, if the decision of the first award be adverse, shall be given by the person so appealing from the said award; and that no further appeal shall be allowed where the compensation awarded does not exceed Twenty Pounds.

8. That after the passing of the Act the owner of any tenement not at the time servient to some neighbouring tenement, but over which such neighbouring tenement would in course of time acquire dominant rights, may serve upon the owner of such neighbouring tenement a formal notice, in form and manner prescribed in the Act, and may advertise the same in the daily papers, and such notice shall have the same effect as though an interruption had been submitted to for one year immediately previous to the date of the service of such notice.

9. That no building erected after a certain fixed date shall acquire any rights of light over neighbouring property.

Mr. LEWIS ANGELL [*F.*].—Mr. President and Gentlemen, I do not appear before you either as an expert or as one claiming any special experience on the subject of light and air. But of course we all know the uncertain and unsatisfactory method of present procedure. The matter came first before the Science Committee quite six years ago. I find in March 1887 it was first considered by them, and altogether they had, before the report was published, the matter before them on ten different occasions. Therefore it was exceedingly well considered and studied, and the Committee think—those of them, that is, who have survived, for the last report was issued, by the way, nearly three years ago, in May 1890—that the labours of that time should have some result. The report has been reviewed by the present Committee, with but one alteration being made, and I think I am justified in saying that substantially the present Committee are in accord with the report which was issued in 1890. There are two members of the Institute who took an active part in the discussion and the formulation of the report—Professor Roger Smith, and, especially, Mr. Douglass Mathews—and I am glad that they are here to-night to practically, I may say, defend the Report, if such defence is necessary. It is a question affecting the whole country, but I do not think there is any chance of passing a private Bill, or getting the Government to move in the matter, and the best chance is in having it initiated in London by the London County Council in their Building Act or Consolidation Act. Then probably it will not be very long before it is extended to the whole country. I will content myself now by formally moving that the London County Council shall be asked to include in the next proposals for the amendment and consolidation of the Metropolitan Building Acts, enactments similar in effect to those proposed in the Report. Of course we have only laid down general principles, and they will have to be expressed in legal language, and further consideration given to the details of the matter.

Mr. WILLIAM C. STREET [*F.*].—Sir, I sat with the Committee during many of the meetings at which this Report was considered; and being in perfect agreement with it, I beg to second the resolution proposed by Mr. Angell. We all of us have had to defend our rights from encroachments, and I think the provisions made in the Report are preferable to those at present obtaining, while I think it would be very much better if we were all of us subject only to municipal building regulations, and that outside of those we had to make provision for the lighting of our buildings upon our own frontages and our own properties.

Mr. H. H. COLLINS [*F.*].—Sir, all that seems to me to be proposed by the Committee is that where questions affecting light arise, there is to be a special tribunal composed of experts. I want to know simply if that is the fundamental suggestion made? I quite agree as to this tribunal, but the time that would be consumed in its operations I believe would be unconscionably long, perhaps three or four months, and during that period the building would be practically stopped. Now, if there is an injury likely to be effected, we apply for an injunction, and if we begin on Monday morning we have a good chance of ob-

taining it on Friday afternoon. Then, as a rule, we have time to negotiate, and an opportunity is afforded of coming to an amicable settlement. I cannot say myself that I rejoice very much in this outcome of the Committee's many years' work. It seems to me that the mountain has produced a mouse. I think a wise course would be to refer the Report back so that some much better suggested measure than this may be brought forward. I do not object to having a tribunal of experts; on the contrary, I think that it would be very desirable, but I am of opinion that their decision should be final, and it should be expeditious.

MR. E. T. HALL [*F.*].—Mr. President and Gentlemen, I confess, having studied this Paper with a very great deal of care, I see so many difficulties and so many dangers in it that, if it is necessary, I will move an amendment to refer it back to the Committee for reconsideration. (Hear, hear.) Now, Sir, it is only possible to discuss a matter of this sort by analysing it a little. It seems to me, in the first place, if Clause 9 is adopted the whole of the machinery which is set out in the previous eight clauses dies of necessity. Mr. Street, the Hon. Secretary of the Committee, has told us that we have all had to defend our rights, and therefore I presume the object of this is to protect our rights. But, Sir, have the Committee considered the effect of the last clause—"That no building "erected after a certain fixed date shall acquire "any rights of light over neighbouring pro-"perty"? Sir, if that is right, what is the effect of it? It means that your neighbour may erect his building twenty storeys high, and may utterly ruin your lights, because you have no power whatever to stop him. Surely the Committee do not mean that. If they do, it is too preposterous, and instead of having our rights defended by the clause, our rights are absolutely wiped out. I know it is proposed that this scheme should be dealt with by the London County Council, so I shall be answered probably that the limit is a height of 90 feet. But that is quite sufficient if it is close to your windows. If, however, this scheme is to be put into Bill form at all, I venture to think it must be made to apply to the whole country. If it does so apply, where there is no limit of height there will be nothing to prevent such buildings as are being constructed in Chicago (one of which, as I have been recently reading, is 520 feet high) being erected immediately opposite your back windows. Now, with regard to the first three paragraphs. I would note that No. 1 is to be retrospective. I do not know if the Committee mean it, but they say "that the owner or occupier of any tenement "who considers that his ancient lights will be or "*have been* interfered with." Now that may mean at any time—it may mean have been interfered with nineteen years ago. If it is so, what is to be the effect? The adjoining owner shall have the right to inspect drawings of the buildings which *shall be* prepared. That may mean that the owner of the building who has purchased that building a year before (the buildings having been erected nineteen years ago) has to have drawings made of the whole of this building in order that his neighbour may inspect them: a tax that is preposterous in the first place, and a course which is utterly hopeless as a working measure. It is rather a detail to criticise the wording, of course, but it begs the whole question when it says in the sixth line of Clause 1 "which *cause* such inter-"ference." It means, of course, "which causes "or may cause such interference"—that, of course, is a mere detail. Then I would ask with regard to Clause 2 and all the clauses right through, why on earth is not an *architect* to act? I thought this was the Royal Institute of British Architects; but in every case it is to be a surveyor. Why of necessity a surveyor? It appears to suggest that it is to exclude an architect. (No, no.) Then it goes on to say that there shall be an award, and that the award shall determine—what? First of all the *right* of the building owner to do certain things. Now, how can any private individual determine a "right"? A "right" is a matter of law, and nothing but a Court of Law can determine a man's rights. I do not think the Committee mean that. I think that probably their intention is that the arbitrator shall say if the works will interfere with the access of light, and that he may give an award on that. No Court in the country would ever permit an arbitrator to determine a man's rights. At the end of clause 4 is stated what the award may determine—it may determine "The right of the building owner to carry out his "intended works, the alteration (if any) necessary "to be made in carrying out the proposed new "buildings or alterations, to prevent or lessen the "obstructions, and the amount (if any) of com-"pensation of every description to be made." If it means that, it should go on to say surely "either by money payments or by alterations "and improvements to the adjacent premises." It must mean that if it means anything. Then—"That in the event of either party neglecting to "appoint a surveyor within the time before pre-"scribed." Now, they have omitted here something of great importance: "or of the neglect of "either to proceed as before described"—a most essential thing. You may elect the two men, but by collusion or hostility they may never proceed, and then under this scheme nothing whatever could be done. Then it is suggested that there should be an appeal to a Court of seven, and it says that the quorum shall be three. But it is a Court of seven. That means that the whole Court may sit. If so, the cost of the Court will be £100 a day at the very least for Court fees—and is not that simply prohibitive? Is it possible that one case in a hundred of ancient lights could ever go to such a Court? It could not stand the expense. In all such cases there is a complication of evidence, and if a Court consisting of seven men like this are to sit on such a case the cost would be so prohibitive that no one could ever appeal. Again, you will notice that the only appeal allowed to the High Court is on a question of money, and later on it says there shall be no appeal if the compensation awarded is under £20. Well, Sir,

but suppose a case where a building owner has to pay £20, and has in addition to reduce his building so that he loses £500 a year in rent, why on earth should not he have a right to appeal to the High Court? He is going to lose only £20 in compensation to his neighbour, but he reduces his building to an extent which means a capitalised sum of £12,000; yet he is to have no appeal to the High Court. It is too serious a matter to let such a recommendation as that go forth. Then Clause 7 says: "Provided always that a proper "undertaking to pay the costs and expenses in- "curred in delaying the work, if the decision of "the first award be adverse, shall be given *by the "person so appealing* from the said award." Now, does it mean really, as it reads, that if the building owner appeals he has got to give an undertaking for his own costs for delaying his own works. The Committee's Report means, I suppose, that if the adjoining owner appeals he must undertake. Then, again, in the latter part, "no "further appeal shall be allowed where the com- "pensation awarded does not exceed twenty "pounds." It says "no further appeal," but it means, I think, that there shall be no appeal from the first award. If a permanent alteration of the law is asked for, such as in Clause 9, that is a question that might be debated here; but I venture to suggest that this Institute should pause before they put this Paper forward for any public authority like the County Council to act upon. A reason has been given why we should go to the County Council rather than to the Local Government Board; and from the practical point of view there may be something in it. But we must not forget that it would be very difficult to persuade Parliament to alter for London only this law which obtains practically all over the country; and even if it were possible, I hope, Sir, the alteration will not be done on these lines without very serious amendment. With these observations, I will conclude by moving that the Paper be referred back for further consideration.

Mr. H. H. LANGSTON [*A.*].—Sir, I have very much pleasure in seconding Mr. Hall's amendment. Respecting Clause 9, I would add that not only would the disadvantages take place as pointed out by Mr. Hall, if this clause were sanctioned, but great disadvantages would also be placed upon owners generally when building at the boundaries of their property. I think it is highly dangerous that any such suggestions as this should go forth from this Institute, and that we should say that no building erected after a certain fixed date shall acquire any rights of light over neighbouring property. Referring to Clause 6, I think it would be better not to have two barristers upon this tribunal, and I would advise that instead of three there should be four Fellows of the Institute, and that instead of two surveyors there should be three members of the Surveyors' Institution. I hope that, whatever resolution we may come to, the Royal Institute of British Architects will not sanction this Report before it is thoroughly threshed out in every point and amended.

Mr. H. DAWSON [*F.*].—Sir, as a member of the Science Standing Committee, I have all along contended that Clause No. 9 is a mistake, because it almost renders nugatory a great deal that has preceded it; and more especially the new provisions set forth in No. 8, which I do submit is a very excellent clause. I do not suggest any amendment to those provisions. They give, you will observe, to the owner of any tenement who thinks he is threatened with injury in the future, the right to give notice of his objection to the opposite owner, who has opened new window lights, and which notice is to have the same effect as if he had rented and maintained for one year obstructions to those new lights, and his opposite neighbour had submitted to them. In the present state of the law, this one year's interruption of an attempted encroachment by the acquirement of new rights imposes a most onerous obligation both on the dominant and servient owners. Now this Clause 8 would be for the purpose of preventing an unfair acquisition of rights, and I think it is a very desirable improvement. But then the recommendations wind up by saying in Clause 9: "No building erected "after a certain fixed date shall acquire any rights "of light over a neighbouring property." I think I may venture to predict—indeed, I feel confident —that the Legislature would never sanction such a restriction of rights, that they would never shut a man out so thoroughly from establishing his rights so acquired; and it would, in my opinion, often operate most unjustly upon subsequent purchasers of property, of which there might be three, four, five, or six. Now, then, Gentlemen, with regard to the rest of the Report, I quite agree with Mr. Hall that there are points of verbal construction, and a few sentential mistakes, which I think will need amendment. As to Clause 3, I do not agree with Mr. Hall or Mr. Collins in believing that this is going to create delay. I am of a different opinion from that, because if you add the number of days together within which each of these processes should take place, they really are, as far as my experience tells me, considerably shorter than what takes place now. I quite agree with the suggestion already made that it would be better to designate the professional adviser as his architect. But the omission is that no time is stipulated, and therefore I propose that Clause 3 should read: "That upon "receipt of such notice the building owner shall "acknowledge the said notice within three days "from the date thereof, and at the same time "inform the persons from whom he received "notice the name and address of his archi- "tect," &c. With regard to the practice of respectable architects, upon which Mr. Hall laid stress, we could hardly put that before a legal tribunal. When it is stated that the gentlemen of the legal profession are very clever in doing their best for their own clients' side, my experience is that there are architects who do the same. However, my object is with a view to shorten the time, and that is why I propose to insert in Clause 3, "within three days "from the date thereof." Then Clause 4 says

that these two surveyors shall within seven days meet, and that if they do not agree they shall refer the matter in dispute to an umpire. Now allow me to suggest another interpolation in order to check unfair delay. I think it should be: "within three further days they are to refer the "matter in dispute to an umpire." Then the 5th Clause says: "that in the event of either party "neglecting to appoint a surveyor within the time "before prescribed;" but it does not say anything about their appointing an umpire. I propose that the power to apply to the President of the Royal Institute for the appointment of an umpire shall operate, both in the case of default to appoint an umpire as well as in the first default to appoint a surveyor. It says here: "In the event "of either party neglecting to appoint a surveyor" —and there I would interpolate, "or an umpire "within the times respectively before prescribed," and then would follow the words, "or the unwill- "ingness," &c. Then at this point of the Report there is what I venture to call an important omission. There ought to be a clause to restrain the building owner from proceeding with his new building after he has acknowledged his neighbour's notice and appointed his own surveyor to act on his behalf. Therefore I propose, before this Report is submitted to the consideration of the Legislature, that a clause of this kind should be inserted, which I have called 5a. It would read as follows:—"That from and after the expiration "of the three days stipulated in Clause 3, it shall be "unlawful for the building owner to proceed with "the erection of his new building or of his altera- "tions to an old building to a greater height than "the old buildings which existed upon the same "site immediately prior to the commencement of "the said new building or alterations, until a "settlement or an award (as in Clause 4) shall "have been made and accepted by the parties— "excepting in cases where such intended new "building, or altered building, when completed "by the building owner, would not exceed in "height, in any part thereof, an imaginary line "set and produced at an angle of 45° from the "point of intersection between the vertical face of "the opposite wall of the dominant owner's build- "ing and the level of the foot pavement or of the "ground surface adjoining to that building." Then as to Clause 6, I agree with what has been said (though I gave way upon it at our Committee), that it would be much better if we did not have so many persons composing this tribunal of experts. (Hear, hear.) Instead of seven persons five certainly would be ample. The tribunal, if it is going to be worth anything, should be really a tribunal of arbitrators, and should be final. But if not, then I think it is desirable to limit the right of appeal to the High Court only to very few and exceptional cases indeed. I think there is a considerable amount of ambiguity in that Clause 7 as to who is to give the undertaking, and what award is referred to, and which award is appealed from—for there are to be two awards before you come to the appeal to the High Court. I propose, therefore, to substitute the following clause. I could not alter it, so I have rewritten it: "Provided "always that a proper undertaking to pay the "costs and expenses incurred in delaying the "work, or otherwise, shall be given by the person so "appealing from the said first and second awards, "and that no further appeal beyond such second "award shall be allowed where the compensation "awarded does not exceed twenty pounds." I conclude by repeating my hope that we shall expunge the *ninth* clause. If we do not, I am quite sure the Legislature will do it for us.

Professor KERR [*F.*].—Sir, it seems to me that the discussion which has thus far taken place has degenerated too much into detail. It seems to me that what the Committee have got in their mind is simply this—and I am bound to say that I commend them very much for it. Clause 9, of which we have heard so much to-night, ought to have been clause 1 to be in proper order—That after a certain fixed date the law of ancient lights shall be really obliterated. Now I feel sure that Parliament will never agree to that (Hear, hear), and the legal profession will never agree to it. (Hear, hear.) Gentlemen will perhaps excuse me if I take the liberty of explaining to them in a very few words how the law actually stands, of course from our point of view; and I need not say that I am not pretending to speak as a lawyer, although I have had a good deal to do with the law of the matter in my time. From the earliest period the protection of window-lighting has been the law of England. It has been regarded as a matter of common sense. By the way, it is not the law in Scotland (Hear, hear); it is not the law in France; it is not the law in America; indeed, I do not know that it is the law of any other country except England; but I do not think the English will ever part with the principle, the only real difficulty being its reasonable application. Now the principle is this—that, as a matter of abstract good sense, every man shall be neighbourly with respect to his neighbour's enjoyment of the light of heaven. That is a point of kindly good sense from which, I believe, English people, having become accustomed to it, will never be persuaded to depart. But those of us who have had much to do with cases of ancient lights know very well, and it cannot be disguised by any one, that there are hardships innumerable connected with the administration of this principle. The very ablest lawyers acknowledge that they find great difficulty in interpreting the law. Perhaps they sometimes magnify the difficulty; I do not say they do, but I cannot say they do not. At all events, in their hands the law of ancient lights becomes exceedingly complicated; so much so that after many years' experience I for one am bound to say that I cannot make anything else of it than a toss-up. Now, in the Metropolitan Building Acts—not only in the present Act, but in the previous one—there is to be found a very excellent and very ingenious provision to keep partnership disputes with regard to party walls out of the reach of litigation. As a general rule, I do not know that the lawyers themselves are very fond of building cases. They do not profess to

understand building disputes; they do not understand them; and they never will understand them. One of the judges once frankly said in Westminster Hall with regard to the Building Act: "The builders built it, and let the builders explain "it." Accordingly, as I have said, we have an excellent arrangement for keeping partnership disputes with reference to party walls out of the hands of the lawyers; and I am inclined to think it may not be fully understood by the gentlemen who drew up this scheme that is before us. I hope they will excuse me for saying such a thing; and I may add that it does not seem to be understood by some of the gentlemen who have spoken to-night. The arrangement is this, that each of the disputants shall appoint what is termed a surveyor. By the way, this term "surveyor" is surely not to be spoken of as a discreditable one; and it is a term which is applied by universal usage to business of this kind. Well, each party shall appoint a surveyor, and these two shall appoint a third, and the award shall be delivered, not by "an umpire," but by "any two of the three." Now it has always seemed to me that this is the most ingenious and the most successful part of the whole arrangement. You get rid of the secrecy of the umpire's mind—which is a very serious consideration in most cases; you avoid the undisclosed argument by which he has arrived at his conclusions; you escape from the shabby maxim that it is best in giving your decision to keep your reasons to yourself. The essence of the arrangement is that the three surveyors meet together as a statutory tribunal, composed of three peers—three absolute equals, any two of whom can deliver the decision, and the consequence is that these three gentlemen talk the matter over and can come to a compromise in any form which is necessary or advisable in the interests of the parties. (Hear, hear.) I assert that in these building disputes of ours compromise is our sheet anchor. (Hear, hear.) The uncompromising severity of a legal formula is not what we want at all. What we want is a practical way out of a practical difficulty; and the principle of mutual concession or compromise, I say again, is our sheet anchor. And it is the discussion of a practical question by these three practical men as equals which is particularly calculated to admit of amicable compromise being introduced with advantage, at any moment, in any form, and to any extent that may be desirable from time to time. Now what the Committee have proposed—and I beg to ask the Meeting to support it as a suggestion which we all in this room can feel to be almost indisputable—is that the principle of the Building Act with regard to cases of party walls would be a very excellent rule for dealing with cases of ancient lights, which in a certain sense are obviously partnership disputes like the others. That is all that the scheme of the Committee really means to insist upon; the rest is matter of detail. I therefore would ask the Meeting not to dismiss this upon considerations of phraseology (hear, hear), but to support the general principle, which is our own practical principle as opposed to the lawyer's principle, namely, the statutory tribunal of the three surveyors. That is what all of us ought to support; and to that length I hope the Meeting will go, and beyond that length I do not think it is advisable to go. All the rest, as I say again, is matter of detail, and may be left to my friend Mr. Angell's Committee, or to the Council, or to whomsoever you please. Then as to submitting the proposal to the London County Council, that is a matter for separate consideration. Whether the County Council would take it up or not I do not know, and I do not understand much about Parliamentary business; but at all events, if we lay down this principle of ours we have done something, and I think all that we can at the present moment attempt to do.

MR. CHARLES FOWLER [*F.*].—Sir, as a former member of the Committee, I should like to say that I quite agree with Professor Kerr, that we should not discuss this matter in detail. I am only sorry that my friend Mr. Angell did not, in introducing this Report, ask that the Institute should agree to the principles of the Report, rather than that they should take the Report as it is entirely. We can only discuss and attempt to decide matters of principle, and when the general body has decided matters of principle, the details can be worked out by a Committee subject to that decision. Sir, in this Report it appears to me that there are three principles—and I am only going to discuss the principles of the Report. The first is, that all matters of light and air, instead of being discussed in the Courts, should be discussed by architects and surveyors, who understand the question, which the lawyers do not. Now, I think the Committee have very rightly recommended that the same course which is laid down in the Building Act with reference to party walls should be adopted in principle with reference to questions of light and air. That is the first principle. Then the next principle is that there should be a body of well-qualified experts, to whom there should be an appeal in case of the award of the three surveyors in the first instance not being accepted. I do not see any objection to the details even of that; but still the principle is the great thing, that there should be a body of experts appointed, from whom in each case three persons should be specially selected to treat that particular case. Now that appears to me to be quite a reasonable course. The third principle is, that instead of having to adopt a very cumbrous and costly means of asserting his right, an adjoining owner may protect his rights of light by documents and notices. That appears to me to be also an excellent proposal. These appear to me, Sir, to be the three principles which the Committee have very well, in my opinion, put into this Report, though they have perhaps entered a little too much into detail. Then there is one principle which is put at the end of the Report, and which I thoroughly agree with. I know that I am in a minority, and a decisive one I am afraid; according to my judgment a person should always be compelled to light and ventilate his premises on his own ground, and

he should not in any way be dependent upon his neighbour, or should make his neighbour contribute towards the light and ventilation of his own premises. But I am afraid that Parliament have decided otherwise. They decided that a prescriptive right should arise after a certain period; and they fixed the period of twenty years. That was, of course, a perfectly arbitrary thing, and it may be that possibly some alteration might be made if it were put forward for discussion. Now, I imagine that this Clause 9 which has been referred to is merely put forward in that way. I do not suppose that we should be able to persuade the London County Council, or any other body, to adopt this view. But we may perhaps expect that a discussion of the question might influence the existing law in some respects. I do not think we could adopt this Report. But I would accept the principles laid down in the Report, and I hope that course in some shape or other may be adopted.

Mr. J. DOUGLASS MATHEWS [*F.*].—Sir, I quite agree with the remarks Mr. Fowler has just made. It is hardly fair that the Report should be brought before the Institute in this way. This subject was referred to the Committee by the Council with a request to them to report to the Council. What the Council have done with it since its reception I do not know, as it was three years ago. At any rate, it has seen daylight now, and as the Report comes before us now in the same form as it was sent up, practically the Council have done nothing with it, and it would only have been fair to have given the Committee the opportunity of revising it after three years' idleness. Many of the remarks that have been made this evening are perfectly just, and I have no doubt they would have been foreseen if this Report had been reconsidered before it was printed. Professor Kerr has hit the right nail on the head when he says the desire of this Committee was to assimilate as far as possible the method of dealing with ancient lights with that of party-walls. That is so to a certain point. But I do not quite agree with him as to the importance of appointing the three surveyors. It was considered by the Committee, but it was thought impracticable. Notwithstanding the great difficulties in settlement of party-wall questions, it is astonishing how little litigation there is in reference to the procedure, and after the long trial that the Metropolitan Building Act has had, and the good results it has produced, I think if we could go upon the same lines with reference to lights, it would be a very desirable thing. It is utterly impossible to lay down any laws affecting lights generally. Every case has its own peculiarities, and therefore it was felt in Committee that it would be impossible to lay down any angles of light, but to make the procedure as simple as possible, in order that delay and litigation arising in reference to ancient lights might be reduced as much as possible. A difficulty in appointing a third surveyor was this. It must be remembered that the parties are absolutely opposed to each other in the ordinary way, and it is a very difficult thing for two surveyors, or two architects (I quite agree with the word "architects"), to discuss all matters together as in party walls, where certain rules are laid down; as the alleged sufferer would say, "The other surveyors have taken a very unfair "view; I do not agree with them; and therefore "I shall certainly object to this award." It was thought much better that the two surveyors should meet, and discuss the matter between themselves, and endeavour to arrive at a decision, and in the event of their failing, to leave it to a third person in whom they both had confidence. I am sorry to say my experience does not confirm Mr. Hall. Now as to delay. Seven days is not a very long time to give notice or to settle the rights in the matter. I quite agree with the words that Mr. Hall has suggested as to the appointment of an umpire. I do not think the appointment matters particularly in case of one of the surveyors not being named. If the owner does not choose to appoint an architect or surveyor to represent him his opposition falls to the ground, and he would naturally for self-protection appoint his own representative. In reference to the tribunal of experts, it has been said that the minimum is three. It might be that there would be an exceptionally heavy case, where it would be better to have as large a number present as possible; at any rate, under any circumstances it is decided that it is necessary that the tribunal should not be less than three, and one of those should be a barrister. I am afraid that, notwithstanding what the Professor says, he did not quite appreciate the importance of the legal element. The tribunal, it is intended, should possess judicial powers—(Hear, hear)—and the intention is not to allow an appeal from this tribunal at all. As to the mode of building, or alteration to adjoining buildings, and other matters of construction, it is felt that these experts are far better able to decide such matters than the judges. Now when the matter is taken to the Court it is for the judge to say whether the building can be erected or not—not that you may alter *this*, or may take a little off *here*, or put on *there*, which the Professor said amounted to a compromise, and was no doubt a desirable thing. The powers of this tribunal would extend to that; it would go into the whole question and deal with it in a business-like, and I venture to say, an equitable manner. But there is an appeal, and that appeal is in the matter of compensation. It is felt that no lay tribunal should take away an existing right, and that is the right of a person being properly paid for what he possesses. Therefore, if the amount of compensation is not considered to be sufficient by the adjoining owner, then he has the right of going to the Court and of saying, "This is my property, "and I do not consider I am properly compen-"sated for its loss." I think this Report has met with a very good reception, and that with a little more consideration the matter is ripe to be carried further. I think it would be much better that the Report should be referred back to the Committee, and, at any rate, that its principles should be adopted, so that something should come of it. What that something should be I hardly know. I confess I am very much of Mr. Hall's

opinion, that we should go for an Act. But "Half a loaf is better than no bread," and it is thought that as there is a probability of the County Council obtaining a new Building Act some day or another, clauses dealing with light and air might be introduced into it.

MR. SIDNEY VACHER [*A.*].—Sir, I should like to speak against the amendment. To put the matter in a nutshell, it is Protection versus Free Trade. We have the advocates of protection in Mr. Mathews and Mr. Dawson; we have the advocates of free trade in the Committee; and the strongest argument for what is set forth by the Committee is Mr. Mathews's own speech. The whole thing is against Protection. We have heard many speakers say "The law will never be "altered"; we heard that years ago. But we have got free trade; and I look forward, and I say that the action of this Institute is the action of a go-ahead body when it proposes free trade in light and air.

PROFESSOR T. ROGER SMITH [*F.*].—Sir, we are indebted to the Committee for putting into a small compass the broad principles of the thing. First of all, as to No. 9. As Professor Kerr has reminded us, they do very well in Scotland without rights of light and air. I had, years ago, a good many papers connected with this matter pass through my hands, and some of our Scotch correspondents expressed great astonishment that we were bothered with the discomfort which they knew nothing of. They said it was found perfectly feasible for each man to light his own building from his own premises in Scotland, and that if we only were obliged to do it we should do it perfectly well in London. Now I strongly advocate that if No. 9 is right it should be retained, and that we should adhere to the proposal that beyond a certain time no buildings to be erected should ever have the power of gaining dominant rights over their neighbours. But that leaves the existing lights to be dealt with by the machinery which this Report provides. I think Mr. Hall appeared to be under the idea that if No. 9 was passed it would have a retrospective effect as well as a prospective effect. That is not the sense in which, if he read it more carefully, he would find it would act. It is necessary that this machinery should exist, and should be maintained for the purpose of dealing with rights that exist, and that it is not intended to ask Parliament to sweep away. It is only to cease to exist at a certain point, which is not an unfair thing to propose, I think, in a growing city. I do not think any one has spoken about the grave difficulties entailed by the existing mode of settling light and air questions, and by the formidable nature of the powers wielded by the Court of Chancery, and the easy resort to them that many people have. We see mutilated buildings all over London. (Hear, hear.) We constantly have difficulties in our practice, many of which would have disappeared, and many of these mutilated buildings would not have been mutilated if some such proposal as this had been in existence, and if it had been possible for two professional men, skilled in the subject, to meet and adjust the difference. I sincerely hope this Meeting will adopt the principle. I think it will be a desirable thing to send it to the County Council as the only body likely to promote a Bill in Parliament which has any chance of passing, and which will affect buildings in London; and this will not be an inappropriate supplement to a future Building Act, if ever one is passed.

MR. B. DICKSEE [*A.*].—Sir, I think there is a matter of principle, and not of detail, which should be dealt with. It occurs in the second clause. The onus is upon the adjoining owner to ascertain what infringement of his rights will exist. Now I certainly think that the onus should be upon the building owner to give notice that he intends to erect buildings. In many cases the freeholder of the building lives a hundred miles off the property, and has no means whatever of knowing that a building next door to him is being erected. Under the Building Act it is necessary for every man who is going to tamper with a party-wall in any way to give notice; and I think that some such machinery should be adopted in the case of ancient lights. In fact, we know many cases where people endeavour to rush up buildings before they are found out, and a large quantity of litigation arises from that. I certainly think the onus should be upon the building owner to give notice in the same manner as in a party-wall case. Then I think there is something to be said for and against No. 9. It is quite right that people who have got ancient lights should not be entirely blocked up; but there are many lights in existence that absolutely prohibit a man building upon the adjoining land in any shape or form. There are many places down Shaftesbury Avenue and places like that which are bristling with ancient lights. I think the proper course is there a middle course. As one of our Judges said the other day, it was not a question of whether a light was as much as it was before, but whether sufficient light was left.

THE PRESIDENT.—What has been referred to as the principle of the report appeals to my sympathy (hear, hear), because it certainly is an effort, if I read it correctly, to simplify the complicated and costly procedure that is too often incurred, and to arrive at a settlement through a small adjudicatory court of experts. That does seem to me to be a right principle, and probably if the matter were referred back to the Committee, they would be able, after having heard this discussion to-night, to simplify some of the points that have been criticised and to bring up a report which would gain general approval. I would suggest to the mover and seconder that they should vary their amendment to this extent: That the general principles of the Report be adopted, and that it be referred back to the Committee for revision of details.

MR. HALL [*F.*].—Sir, that is my intention. I do not quarrel with the principle at all. But I except Clause 9 from the principle, because there is a great deal more in it than appears on the surface here. I want that to be reconsidered.

MINUTES. X.

Special General Meeting.

At a Special General Meeting held on Monday, the 13th inst., at 8 p.m., Mr. J. Macvicar Anderson, *President*, in the Chair, with 24 Fellows (including 9 members of the Council), and 12 Associates (including 1 member of the Council), the notice convening the Meeting having been read, it was, on the motion of the President, seconded by Professor Kerr [*F.*],

Resolved, *nem. con.*, that, subject to Her Majesty's gracious sanction, the Royal Gold Medal for the year 1893 be presented to Mr. Richard Morris Hunt, *Hon. Corr. Member* (New York), Corresponding Member of the Institut de France, for his executed works as an Architect.

The proceedings of the Special General Meeting then terminated.

Tenth General Meeting (Business).

At the Tenth General Meeting (Business) of the Session, held on Monday, the 13th inst., at 8.15 p.m., Mr. J. Macvicar Anderson, *President*, in the Chair, with 30 Fellows (including 9 members of the Council), 30 Associates (including 1 member of the Council), and 1 Hon. Associate, the Minutes of the General Meeting (Ordinary) held on the 27th ult. [see p. 223 *ante*] were taken as read and signed as correct.

The decease of the following Fellow was announced, namely:—Alfred Pope Strong.

A list of donations to the Library and Collection having been taken as read, it was

Resolved, that the thanks of the Institute be recorded to the several donors.

The Meeting having appointed two scrutineers —namely, Mr. Lewis Angell, M.Inst.C.E. [*F.*], and Mr. Francis Hooper [*A.*]—the following candidates were balloted for and declared to be duly elected:—

As Fellows (8).

Rhodes Calvert (Bradford).
Joseph Pilling (Bolton).
Alfred Edward Purdie.
Thomas Butler Wilson (Leeds & Harrogate).
John Henry Woodhouse (Manchester).
George Harry Willoughby (Manchester).
Jesse Horsfall (Todmorden).
Edward Hewett [*A.*] (Manchester).

In accordance with clause (*b*) of By-law 9, the following candidates were elected by show of hands:—

As Associates (3).

Alfred Ryshworth Hill.
Edmund Herbert Child.
William Edwin Johnson.

Mr. Wm. Woodward [*A.*] having asked certain questions, of which he had given notice, respecting (1) the Paper, now under revision, of "Heads of "Conditions of Builders' Contracts" and (2, 3) the action of the Council in pursuance of the Resolutions of General Meetings held on the 16th June and the 28th July 1892, Mr. T. M. Rickman [*A.*] replied to the first that the Paper was still being considered by the Practice Standing Committee; and the President answered the two others by stating that the Council proposed to report on the 27th inst.

Mr. Wm. Woodward [*A.*] having directed attention to the system of nominating recipients of the Royal Gold Medal, and, further, to the remarks made on the observations of an "Associate-"Member" in a Report, published in *The Builder* of the 16th ult., of the proceedings of the Institute with reference to the Royal Gold Medal, invited attention to an article in *The Quarterly Review* (Jan. 1893) "containing observations "detrimental to the Institute," and moved a Resolution thereon, which was seconded by Mr. H. H. Collins [*F.*], to the effect that an official communication be made to the Editor of the *Review* contradicting certain statements. An Amendment was moved by Mr. James Neale [*F.*] and seconded by Mr. H. Dawson [*F.*], and the matter having been further discussed by Mr. Kidner [*F.*], Mr. B. Dicksee [*A.*], and Colonel Prendergast [*H. A.*], the Amendment was carried, 36 voting for, and 10 against. Whereupon it was

Resolved, that no action be taken in the matter.

Mr. Lewis Angell, M.Inst.C.E. [*F.*], having introduced the Report prepared by the Science Standing Committee upon Light and Air, concluded his remarks by moving a Resolution, namely:—That the London County Council be asked to include in the next proposals for the Amendment and Consolidation of the Metropolitan Building Acts enactments similar in effect to those proposed in the Report.

Mr. William C. Street [*F.*] having seconded the Resolution, and Mr. H. H. Collins [*F.*] having spoken, Mr. Edwin T. Hall [*F.*] moved as an Amendment:—That the Report be referred back to the Science Standing Committee for reconsideration.

The Amendment was seconded by Mr. H. H. Langston [*A.*]. In the discussion which ensued, Mr. Henry Dawson [*F.*], Professor Kerr [*F.*], Mr. Charles Fowler [*F.*], Mr. J. Douglass Mathews [*F.*], Mr. Sydney Vacher [*A.*], Professor T. Roger Smith [*F.*], and Mr. Bernard Dicksee [*A.*] took part. On the suggestion of Professor Kerr [*F.*], agreed to by the mover and seconder of the Amendment, and after some remarks by the President, the Amendment was put to the Meeting and passed as follows:—

Resolved, that the general principles of the Report upon Light and Air prepared by the Science Standing Committee be adopted; and that the Report be referred back to the Committee for reconsideration of details.

The business having terminated, the Meeting separated at 10.15 p.m.

No. 9, Conduit Street, Hanover Square, London, W.

THE DOME OF SS. SERGIUS AND BACCHUS, CONSTANTINOPLE. When, about a year and a half ago, I found it necessary to make some alteration to the woodcut in Fergusson's *History of Architecture*, illustrating the section of SS. Sergius and Bacchus, the vaulted dome of which in no way represented what I recollected to have seen in 1866, when I was visiting Constantinople, I was astonished to find how wide a divergence existed in other illustrations. Fergusson's woodcut was taken from Lenoir's *Architecture Monastique*, published in 1852–56, a work which, though full of valuable information, could scarcely be expected at that period to be absolutely trustworthy as regards its measured drawings. In this woodcut the dome is shown as octagonal with eight ribs, and without any windows piercing the dome. It is in reality divided into sixteen compartments or segments, eight of which are pierced with semicircular headed windows; and is so represented by Pulgher (*Les anciennes églises byzantines de Constantinople*, Vienna 1880), Hübsch (*Monuments de l'Architecture Chrétienne depuis Constantin jusqu'à Charlemagne*, Paris 1886), and M. Choisy (*L'art de bâtir chez les Byzantins*, Paris 1883). There, however, the resemblance stops—M. Choisy's illustrations and those of the other two authorities differing widely in their constructional lines. Hübsch and Pulgher (A) show pendentives in the eight angles, though the precise way in which they accord with the springing of the sixteen ribs, or rather quoins of the vault, is not very clear. In Hübsch's perspective a horizontal string-course is shown which would mark the junction. In M. Choisy's drawing (B), the walls of the octagon are carried up to a similar horizontal line without a string-course; there are no pendentives, and the segments of the vault rest on a ledge [see plan B]. As is usual in Byzantine work, each of the segments is curvilinear in section, and is shown so, to a marked degree, in M. Choisy's drawings; so much so, in fact, that the dome looks like a fluted dish-cover which could be taken off, and does not seem to form part of the octagon hall below. M. Gosset (*Les Coupoles d'Orient et d'Occident*, Paris 1889) attempts to steer between the two problems, and on the left side of his section reproduces M. Choisy's section, and on the right-hand side indicates Pulgher's version, with a suggestion that the difference is owing to Turkish decorative additions of later date.

In my dilemma I applied to Mr. Purdon Clarke, who, in November 1891, had to go to Constantinople to bring home the fine Turkish chimney-piece now in the South Kensington Museum, and I sent him a tracing (A^1), which was based partially on Hübsch's and partially on Pulgher's drawings. Mr. Clarke was kind enough to send me a drawing, from which I worked out the section A^2 (both these sections, A^1 and A^2, are shown in plan at A), together with some remarks thereon, as follows:—

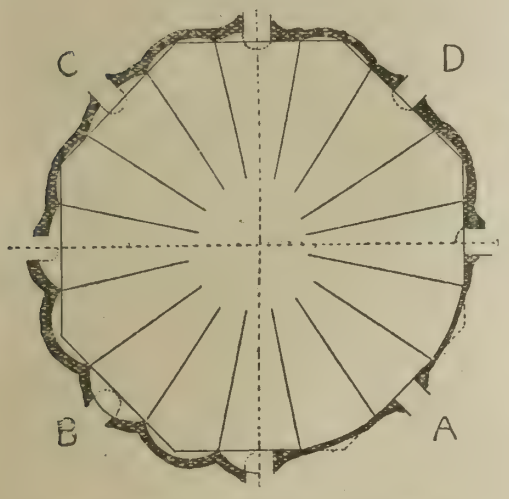
1. The upper half of the dome is spherical, the ribs or groins being marked only by decorative bands.

2. In the lower portion of the dome the curve has a shorter radius, so that the ribs are distinctly elliptical. [I tried to work this out, but concluded that this might

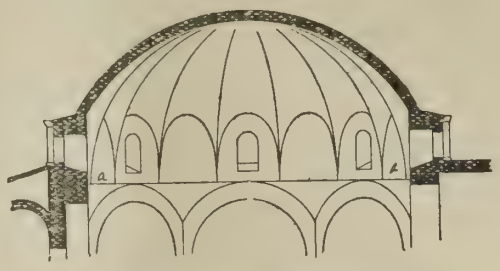
be due to a slight sinking of the upper portion of the vault, which would give the appearance suggested by Mr. Clarke.]

3. The dome cuts the vertical wall of the octagon (which, according to Mr. Clarke, is carried up in the same plane as that which contains the great arch) just above the small clerestory window.

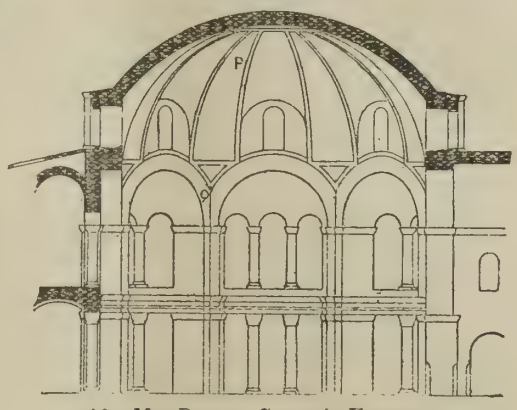
4. There is no such horizontal line as *a b* (A¹); the extrados of the arch rises above the springing of the ribs or quoins. This extrados, as also the horizontal band between, is decorated with borders in colour copied from an Eyoub tile design, very well painted.



A, B, C, —Plan of the Dome at its Springing.
Showing the four different Versions.



A¹.—Hübsch's Version.



A².—Mr. Purdon Clarke's Version.

5. The eight compartments in which are pierced the clerestory windows are about a quarter wider than those which rise above the angles of the octagon.

In a subsequent letter Mr. Clarke says :—"The principal difference (between my "tracing and the actual dome) is in the division into irregular compartments, eight "broad and eight narrow. This may, however, be but an effect produced by painting "the ornamental border on the inside of the alternate segments" (namely—those without windows).

The pendentives Mr. Clarke left in, and, moreover, suggested their existence by stating that "the apparent section from P to Q is an elliptical curve."

Section A² therefore represented Mr. Purdon Clarke's views at the time of his visit; he subsequently expressed the great difficulty he had in noting these facts, owing to the obscurity of the building, and it being impossible for him to obtain admission to the galleries.

On the occasion when Professor Aitchison read his Paper * to the Institute on Byzantine Architecture, he expressed so strong a view as to the correctness of M.

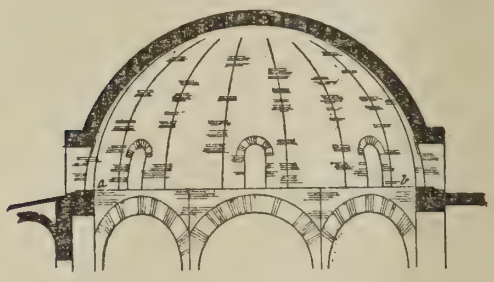
* Transactions, Vol. VIII. pp. 221–264.

Choisy's drawings that I endeavoured to obtain more information from Constantinople, and was told that photographs of the vault were in the possession of a well-known antiquary and authority on the subject in London. I failed, however, in my application to inspect them, but I am in hopes that they may be published some day.

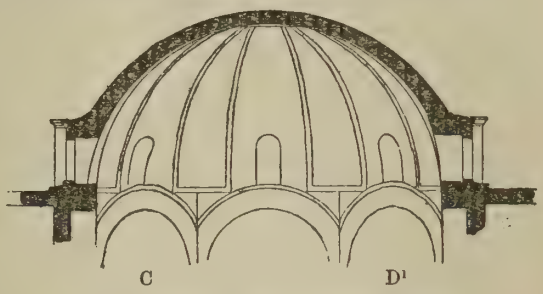
In the meantime, through the kindness of Mr. Carpenter, I have been able to obtain from Canon Curtis a tracing of a photograph showing, at all events, the lower portion of the vault, from which I have prepared the section D^1 and plan D, representing, so far as I am able to follow, the actual facts, which are—

1. There are no pendentives, but the centre of the concave segmental web coincides apparently with the vertical angle of the octagon so closely that Mr. Clarke thought the curve continued down to Q (A^2). M. Choisy, in his isometrical drawing (Plate XX. of his book), sets it back.

2. By carrying the extrados of the main arch above the springing of the quoins, the architect has masked the junction of vault and octagon. M. Choisy shows a horizontal ledge, and indicates four horizontal courses of brick above the main arch.



B^1.—M. Auguste Choisy's Version.



C, D^1.—Mr. R. Phené Spiers's Version.

3. The difference between the main segments and the intermediate is as 6 to 5, the apparent width of the latter being still more diminished by the decorative bands painted on their soffits.

4. There seems to be some difficulty in determining the exact nature of the surface containing the clerestory windows; both Canon Curtis and Mr. Clarke are distinctly of opinion that there is no ledge above the main arches of octagon, and that the wall above is continued in the same plane as that of the arch. Canon Curtis states that the upper portion of the clerestory windows seems to project inwards.* I have endeavoured to meet this in D. If, however, the wall is quite vertical, then the representation in A^2 will be correct. C is another version which would meet M. Choisy's view, except that there is a narrow ledge, the existence of which, however, is denied by Canon Curtis and Mr. Purdon Clarke. A photograph I have just received (14th inst.) shows me conclusively that the main arches of the octagon and the lower portion of the wall containing clerestory windows are absolutely in the same plane. The decorative borders of the extrados of the arch and of the segment of vault are some few inches one from the other, so that the plane surface can be seen running through.

If I have dwelt at such length on what after all may only seem to be a speculative problem, it is because the principle of the formation of this dome is, I think, different from any other that I am acquainted with; and the very fact that its real form is a matter of speculation to those who have seen and drawn it on the spot, is a tribute of praise to the ingenious architect who designed it, and who has certainly realised the truth of the Latin proverb that the highest art is to conceal Art.—R. Phené Spiers.

* Canon Curtis's statement is: "Surface of arch "and wall above in same plane, windows not pierced in "an upright wall, but slightly inclined inwards with "contraction of vault." And again: "There is no "indication of any other intersection of the vault," meaning above the clerestory window. He adds: "The lines of the building are rendered indistinct "by the black paint laid on some years ago."—R. P. S.

REVIEWS. VII.

(16.)

MILANESE ART AND HISTORY.

Reminiscenze di Storia e d' Arte nel Suburbio e nella Città di Milano. Carlo Fumagalli. Diego Sant' Ambrogio. Luca Beltrami. 8o. 1891–1893.

Signor Beltrami, being an Hon. Corresponding Member of the Institute, needs no introduction to the readers of this Journal. Yet I beg permission to remind them that it is to his efforts in great part that is due the preservation of the still grand remains of the Castle of Milan, a first-rate monument. He therefore deserves the gratitude of all those who desire to maintain intact the solid records of the past. The three volumes, with fifty phototypes in each, Signor Beltrami and his two joint authors have published are devoted to this end, and they likewise offer numerous examples of decorative painting. The third volume has only just been received.

The purpose of the work is defined by himself as follows:—To describe whatever constitutes a remembrance of the patrimony of Lombardy, and more especially of Milanese Art, without omitting the slightest traces, however insignificant in appearance. If the large monuments, he says, vivify in our mind the main lines, the principal events of our story, the minor records, permit us to fix the continuity of those lines and better to understand their meaning, just as a document in appearance of quite secondary importance, more than once has thrown new light on some essential points of history. Thus, he adds, the small oratory, the villa or the modest rural dwelling, reconstitute social life of the past in those normal periods considered as the periods of incubation of the great changes in the manifestation of Art. And I hasten to say that more than one of the monuments in this work belong, not merely to periods of incubation, but to the best periods of Art.

This special character of the work must be borne in mind in order sometimes not to underrate its true value; otherwise in some cases the student might at first sight be inclined to ask if the building shown by the phototypes really deserved the honour of publication. I confess that in this brief review I have dwelt almost exclusively on the monuments belonging to the *time* of Bramante and his school; but specimens of an earlier date and of mediæval character are also numerous in the work, and contain interesting examples of frescoes and decorative painting. I begin with the *Castello di Cusago*. It was erected by the Visconti at the end of the fourteenth century, but modified in several points at a later period. A square tower, once ending with its battlements, rises over the entrance. But the eye is immediately attracted by the loggia, forming on the first floor the left angle of the front. It recalls, though on a nobler scale and in more costly material and of greater elegance, those loggie so frequent in the villas of the fifteenth and sixteenth centuries around Florence, and also the smaller one over the stairs in the long court of Milan Castle. Three columns are on the front, eight on the side, not including the stronger square angular pillar. These dimensions, the white marble of its tall columns attaining the limits of slenderness compatible with the impression of strength, the rings somewhat below the middle of their height,* the elegance of the intercolumniations, the delicate design of the rich sgraffito frieze above which they rise, produce that noble and charming impression of elegance entirely natural and wholesome, of which so few besides the Greeks and Bramante possessed the divine secret. Unfortunately, the part above the capitals is so completely in the shade, that no information can be obtained of the round arches which, Signor Beltrami says, carry the roof. The loggia in the courtyard has an elegant colonnade, and makes one regret the absence of a view of the exterior. The more so, as in both these loggie one immediately finds traces of the reign of Lodovico il Moro, when Bramante and Lionardo da Vinci were the chief "engineers and painters" of his court. Signor Beltrami, in fact, tells us that they were both erected by the Duke in 1496, when expecting the visit of the Emperor Maximilian.

The *Cascina Pozzobonelli* with its small *Bramantesque Chapel* in the "Corpi Santi di Porta "Orientale," near Milan. The composition, a cupola hemispheric inside, outside octagonal, with roof and lantern, rises over a square with three projecting semicircular apses. The idea, the proportions, and the design of the sgraffito decoration are in fact so very Bramantesque that, judging merely from the phototypes, it would be difficult to dispute the authorship of the very master himself. In the cupola the circle of painted medallions between the lantern and the round windows of the "lunettes" at its base proceed from the same idea as that which directed the decorations of the sacristy of S. Maria presso San Satiro, the choir of S. Maria delle Grazie at Milan, and of the vaults in Bramante's print at the British Museum and in Casa Perego. The pure and exquisitely elegant lines of sgraffiti in the frieze beneath the cupola are of the same character as some of those engraved ornaments of S. Maria delle Grazie at Milan, or at the 1491 door at the Como Cathedral, the greatest simplicity producing some of the highest impressions of beauty. In the four pendentives of the cupola, as well as in the vaults of the portico leading from the "Cascina" to the chapel, excepting the central part of the latter, the decoration consists exclusively of various designs formed by ribbons employed for borders or medallions of various sizes and richness, but full of movement and grace. The principle is the same as that of the braid or string ornaments of Bramante in the vaults of the sacristy of S. Maria delle Grazie; but the effect seems here more satisfactory, the greater width

* Another example of such columns, with something yet of Gothic proportions, exists in a small court next to Bramante's church of Canepanova at Pavia.—H. v. G.

of ribbons giving more firmness to the design than mere thin cords. The art displayed here in a system of decoration adopting ribbon as a connecting medium between the different parts of these vaults strikes me very much. Such ornaments easily become monotonous, or seem deficient of elastic vigour, necessary even in decoration when applied to architecture. Therefore, if it were not dangerous to judge of such delicate questions merely from phototypes, willingly I could believe that its design was made by Bramante himself. This same idea is produced by the elegant lines of the columns and the yet very simple forms of their capitals, though their design be derived from early Gothic. Four vigorous leaves without any detail bear the angles of the square abacus, and four similar leaves form the lower range.

The *Bicocca*, near Niguarda, offers an interesting example of an entire upper storey formed by one single loggia-like "salone-terrazzo," as Signor Beltrami has called it, open on all sides, not by means of an uninterrupted colonnade, but by equidistant arched windows coupled by a column and separated by narrow piers or walls. The terra-cotta cornice under these windows shows some Medicean mottoes. As these could have been taken from moulds made for other buildings, their presence does not induce Signor Beltrami to admit that the building was necessarily erected by the representatives of the Medici at Milan. From this spacious covered terrace, no doubt, anxious eyes followed the vicissitudes of the famous battle fought here in 1522.

The principal remains at the *Cascina Fasana* (*II*[a]), are a loggia with elliptic or similarly formed arches instead of semicircular ones, a form not frequent in Italy—perhaps a reflex of the taste then *à la mode* in France, to whom Lombardy often belonged at that time, the date of the fresco decorations of its vault being 1515.* The "lunettes," penetrations, and groins bordering these in the vaults seem to proceed from a mixture of remembrances of Northern late-Gothic forms with those in the choir of S. Maria delle Grazie; so that we might have before us either the "opus" of some Northern "mason" on the way of becoming Italian, or the attempt of an Italian, perhaps for some Northern lord.

Sgraffiti at the Abbey of *Chiaravalle* afford an interesting view of the Castle of Milan before 1521. The ornaments forming the frame are as elegant and full of force as if they were a pen-and-ink drawing coming from the "casa di Bramante." The way some of the mouldings are shaded by hatchings is the same as in the engravings of Mantegna or Bramante. Another view of the Castle of Milan existing in the sgraffiti of the before-mentioned Cascina Pozzobonelli is given by Signor Beltrami on page 35.

The elegant porch with three arches, occupying the whole width of the front of San Rocco (middle of sixteenth century), is not distant from the palace mentioned in the next paragraph.

* The text says 1514; the plates say 1515.—H. v. G.

The Palazzo della Simonetta ends the first volume with a very important loggia of nine intercolumniations and three storeys, in the style of those of the Vatican. The ground-floor has arcades with half columns; both upper-storeys have columns. The design is pure, the proportions are good, but somewhat too light for a projecting loggia. In a courtyard, or with extremities strengthened by wings or other means, the effect would be better. It was built by a Tuscan architect—Domenico Guintallodi of Prato—for the Duke of Mantua, Ferrante Gonzaga, who bought the place in 1547.

In the second volume I am anxious to mention *Casa Borromeo* at Milan, with its Gothic door, courtyard, and frescoes representing the game of Tarocco and other plays in fashion at "garden-" parties" of the day, and two interesting ceilings; the curious square Gothic tower of *Casa Gorani*, now *Bazzero* (Pl. 15) of the fourteenth century; the remains of some painted decorations on the outer wall of the Archbishop's Palace (south side), about 1494; and the oldest parts of the *Ospedale Maggiore* begun by Filarete. I would also mention the courtyards of several houses which easily escape the attention of travellers who do not stay long at Milan, such as *Casa dal Verme*, in Via Foro Bonaparte; of a small house, Via Torino 12; of *Casa dei Castani* (Piazza S. Sepolcro); of *Casa Pozzobonelli* (Via Piatti)—all of the end of the fifteenth century; of *Casa Orsini-Roma*, now *Bozzotti*, of the Alessi period; finally the court well known for its rich paintings in *Casa Aliprandi-Taverna*, now Ponti, by Grüner erroneously called "Traversa"; and that of *Casa Fontana*, now *Silvestri*. A fragment of the grisaille frieze in one of the lower rooms of the last-named house is also given.

I felt a strange surprise on seeing for the first time in this second volume (pp. 36–7) the view of the former cloister of Benedictine nuns in Vicolo Lentasio at Milan—in finding out that during my frequent visits to Milan I had never yet heard of so important a building in Bramante's style. The lower arches bear the strongest resemblance to those of the Canonica di S. Ambrogio, and of the court in the palace once belonging to the Marchesi Talenti di Fiorenza, via S. Giuseppe No. 4, as in both these buildings the corner columns have shafts recalling trunks of trees with clipped branches. But what surprised me hardly less was to read that Signor Beltrami, knowing that such columns were said to exist in the former palace of the Marchesi Fiorenza, *and not finding them there*, would have been inclined to identify the Fiorenza palace with this cloister if some religious emblems had not prevented him from doing so. Not having been at Milan for at least twelve years, I cannot say what may have become of the remains of the palace in Via San Giuseppe, but I positively affirm having several times seen there similar columns, and the description of those buildings I gave was then perfectly exact. These columns are not only, as Signor Beltrami says, allusions to the origin of columns according to Vitruvius; they are also allusions to one of the

mottoes of the Dukes of Milan.* I perfectly agree with Signor Beltrami as to the extreme harmony of proportion in this fine loggia, at once firm, charming, and elegant. Virtually, in every case, if not in reality, it belongs to the maestro himself. In the upper storey two arches on columns correspond to each lower one.

Among the cloisters or similar buildings the only side now remaining of the once famous "Lazzaretto" is shown whilst in course of demolition.

Several interesting doors are given from *Casa Castani* (or *Zucchi*), perhaps by Bramante, and that of *Casa Mozzanica*. The latter, considered as Bramantesque, and mentioned, according to Signor Beltrami, by Cesariano, was transported in 1830 to the Villa Serbelloni-Crivelli at Taino, near Angera. I do not believe it to be by the master himself.

As to *Casa Landriani*, later *Imbonati*, now *Melzi*, in Via Borgonovo No. 25, there must be a mistake in Signor Beltrami's mention that Cesariano states it to be a work of his master, Donato Bramante. It is not among the works mentioned by that writer, nor, from the style, can it be the work of that architect. It is more likely to belong to his pupil, Bramantino Suardi.

This volume also contains some interesting chimney-pieces, no longer in their original places, but which have found new homes in other buildings.

The third volume (Part III.) gives, first of all (p. 77), a print of the only photograph existing of the interesting palace begun prior to 1565 by Pope Pius IV., opposite the Brera, and demolished in 1865. The ground-floor (by Vinc. Seregni) alone was executed, the works being stopped by the Pope's death. The style recalls that adopted by the same master at the Exchange (Borsa), and at Pal. Marino by G. Alessi. Then come the cloister of the Abbey of *Mirasole*, with short but not ugly columns; the church of *Casoretto*, with its cloister showing good proportions of the upper and lower loggie; the courtyard of *Casa Grifi*, and that of the *Ospedale di S. Fede at S. Eustorgio*, both at Milan, and in Bramantesque style.

The *Oratorio di Moncucco*, formerly at Lugano, saved by Count Andreani, who had it transported on 160 carts to his distant villa of Moncucco, where it was rebuilt at the beginning of this century. I entirely agree with Signor Beltrami that some of the decorative sculptures he reproduces have the greatest resemblance in style to those of the façade of S. Lorenzo at Lugano, attributed to the Rodari, the Pedoni, and even to Busti.

A few curious remains of *Casa dei Medici* in Via Terraggio. This was given in 1486 by the Duke to Lorenzo Medici il Magnifico, and, as Vasari relates that the latter sent Giuliano da Sangallo to design for him a palace, Signor Beltrami does not hesitate to attribute to the latter the remains of this building. His opinion is very likely to be true, and is a very interesting acquisition for architectural history. However, the few remains given on Pl. 36 alone would not suffice to reveal the authorship of a Tuscan master, except perhaps in the tame attempts of something like rustication. Nor, it is true, is the palace built by Giuliano at Savona for Julius II., when Cardinal, especially Tuscan. I may be permitted to observe that among the three buildings mentioned by Signor Beltrami as specimens of Giuliano's style in Tuscany the Antinori Palace at Florence should be eliminated; and that, for the second, an error of the printer has made him say Pal. Guidi for Gondi.

S. Maria della Fontana is interesting as showing the part-transformation by Richini and Bombarda (seventeenth century) of a small church erected 1507 by the French Governor of Lombardy, Charles d'Amboise. Several of the capitals (Pl. 38) bear French names and escutcheons. I agree with Signor Beltrami that the incomplete arcades on the upper wall of the older part strongly recall the style of Cristoforo Solari.

The last monument I wish to mention is the *Palazzo Stampa di Soncino*, one of those numerous buildings in Milan which strike the foreigner by their great size. Here loggie occupy the ground and second floors, the latter with coupled columns bearing arches. Over the principal entrance rises a large square tower with three retreating storeys above the roof, ending in one of the mottoes of Charles V.: the two columns with the globe and imperial eagle, and the words "Plus "Ultra." Signor Beltrami says the effect was more satisfactory before the last restoration suppressed the original surface of the bricks under a coating of lime.

Before ending this review I wish to say that the three volumes contain numerous interesting examples of chimney-pieces of various styles. Generally they are decorated with paintings on the hood, sometimes of really artistic value.

The author mentions the fact that the great vitality of Milan, and the various successive periods of prosperity there, have been a constant danger for the conservation of numerous monuments of the past. They have dispersed and transformed the records of preceding periods so as to prevent this great city from assuming and preserving the character of one single and particularly important epoch. The present aspect is greatly due to the Visconti-Sforza period; and this fact gives more importance to the aim pursued in the volumes here reviewed. Signor Beltrami hopes the labour will not be useless, since imminent destruction threatens some of the most remarkable records given in this publication. He hopes, likewise, that by vulgarisation of the last reflexes of a now distant period of art, by accompanying the plates with letterpress notes, which in some cases, he says, have become real monographs, municipal interest for its artistic patrimony may be increased, so as to prevent the incessant dangers of suppression, not always justified by the true exigencies of modern civilisation. I feel sure all friends of Italian art will join me in hoping that Signor Beltrami, as Director of the Regional Office for the Conservation of the Monuments of Lombardy,

* *Les projets primitifs pour S. Pierre de Rome, Texte*, pp. 45, 46, and 63.—H. v. G.

may be always successful in such efforts. Personally, I can give no better proof of the interest I found in these volumes than by saying that the monuments they contain, with few exceptions, were unknown to me; and that it was therefore a great regret for me to learn that the two first volumes are already out of print. I hope these three volumes may be followed by others of a similar kind.—H. von Geymüller.

*** The Institute Library possesses a comparatively immense number of Signor Beltrami's literary works; and it may be hoped that Baron von Geymüller's review of this publication, the joint work of three gentlemen, will induce a more careful study of the Italian architect's books than has yet been attempted by members.

(17.)

FRENCH ART.

French Art: Classic and Contemporary Painting and Sculpture. By W. C. Brownell. London. 8o. 1892. [*David Nutt*, 270 & 271, *Strand, W.C.*]

This little book, of 240 octavo pages, is an excellent example of the higher art criticism, in that, whilst analysing with nice distinction the source of charm—whether to ourselves or to a former generation—of the works of any one artist or school of artists, it seeks justice and appreciation for the aim or motive, and attempts to define its distinctive quality, without at the same time seeking to belittle the work of the artists or the school with which comparison is necessarily made. The scheme of the book is chronological; sufficiently so, at least, to follow the development of the modern schools from the imported Italian Art of Francis I.'s time. Mr. Brownell starts with the proposition that "More "than that of any other modern people French "Art is a national expression." That is very true; and it is probably on that account that in no other country does there exist so large a proportion of intelligent and appreciative criticism of its own modern art. Artistic excellence has a better chance of recognition on its merits (not as a fashion) in France than elsewhere, even very diverse forms of excellence.

Mr. Brownell writes what he has to say in clear and carefully chosen language. All art critics labour under the difficulty which is inseparable from an endeavour to translate the language of Art into another—the language of words. Ordinary words rarely quite suffice for the subtleties of art. But such combinations as "confident temerariousness" (p. 55), and "attenuated expansions of Michael Angelo's "condensed grandiosity" (p. 113), are affected rather than explanatory; and Mr. Brownell writes too well to need such displays of ingenuity. That he writes with great impartiality throughout the greater part of the book may be understood from the fact that he is very appreciative of Lebrun, of Watteau, of David, of Géricault; whilst no less able to point out and distinguish with singular insight and care the very varied forms of excellence of such painters as Bouguereau, Cabanel, Millet, Corot, or Puvis de Chavannes. He takes the sculptors in similar chronological order; and, dating modern French sculpture from Jean Goujon, he points out very happily the true distinctions of aim and style.

On page 80, Mr. Brownell has said "Poise is "perhaps the one essential element of criticism;" and he himself has maintained admirable "poise" for over 200 out of his 240 pages: and then his poise is disturbed by friendly admiration. The name of Rodin appears once or more on *every one* of the last 30 pages. The book is dedicated to "Auguste Rodin." To any one desiring to make acquaintance with modern French Art, this little book would be most valuable for its appreciative and careful analysis of that Art's different phases.—J. D. Crace.

(18.)

THE ROMAN WALL.

The Handbook to the Roman Wall, a Guide to Tourists traversing the Barrier of the Lower Isthmus. By (the late) J. Collingwood Bruce, LL.D., D.C.L., F.S.A., &c. Third edition. London: Longmans, Green & Co. sm. 8o. 1885. 272 *pages, several etchings,* 137 *woodcuts, with a map of the wall and a portrait of the author.*

This is a new edition of an old friend, the *Wallet Book of the Roman Wall*, which, originally published in 1863, has given, I doubt not, as much pleasure to many members of the Institute as to myself, when it has been a welcome companion during many a profitable day spent along the line of the great Roman rampart. The present edition will give equal pleasure, it is to be hoped, to other explorers, who will find their work made easy by following its guidance.

This edition has almost exactly the arrangements of its predecessor, the introduction containing a notice of all previous works, and of the important historical and military data, necessary for the information of every investigator who would study with interest the remains of the wall. The second chapter contains the familiar general narrative of the entire work written in Dr. Bruce's happiest style of description, one or two of the words and phrases being modified only by the knowledge derived during the period which has elapsed since the first edition was published. Then follows the topographical description of the wall, its accompanying vallum, and the supporting stations from the beginning of the system of works at South Shields to their termination at Bowness. Not only are the original engravings retained, but a great many new ones are added, many of these being etchings of much beauty and faithfulness of representation. Several of the most recent discoveries are represented, and all of them are described in the letterpress, forming in this respect a valuable addition to the former edition. Of these, the principal are at Chesters, where the results of the steady work of the late proprietor, Mr. Clayton, during many years are related with sufficient detail. Plans are given of the whole area within the walls of the Roman station, showing all the portions that had been

cleared up to 1885, and of the extensive range of buildings near the river, which now stand out above the ancient level to a considerable height, showing the peculiar range of seven arched niches, and, what is seldom found in Britain, the remains of windows.

This important ruin is a lasting monument of Mr. Clayton's devotion to antiquarian pursuits, and the visitor, in admiring its goodly height, has evidence of the heavy work of excavation necessary to free it from the mass of earth which had accumulated during many centuries so as to entirely cover it. It is also an encouragement to investigators, as evidence to show that in some other places equally large masses of building may perhaps still remain buried. One of the later etchings shows one of the turrets of the wall, at Carvoran, which, alas! was only excavated by Mr. Clayton's care, to be utterly destroyed by quarry works. The view affords a good idea of the nature of some of the country traversed by the wall. Along its course the pilgrim will come upon scenery of very great beauty, and with much diversity, visit charming panoramas of considerable extent, ranging far over the wide borderland on one side, and the alternating ranges of hill and dale of the Tyne valley. Sketches are given of the objects most recently found; and among these are the Regina monument, with its inscription in Latin and Palmyrene, now happily preserved in the Free Library at South Shields, and of the almost equally important Victor Memorial, found also at South Shields, now in Mr. Blair's possession. The Firmus Monument, found in Hexham Abbey Church, is represented, and a cut is also given of one of the Greek altars found at Corbridge. The important Greek inscription found at Brough-under-Stanmore is not noted. But almost all the added engravings illustrate the most recent finds. A range of four-leaved flowers laid diagonally is shown on the Jupiter altar from Castlesteads, and a zigzag ornament on another altar from Chesterholm.

A map showing the entire course of the wall, printed, with happy consideration for its service in a guide-book, on linen, is added at the end. I prefer, however, the small-page maps of the first edition. They had more references to the adjacent places, and being given at intervals, it was not necessary to unfold them. But the old maps did not show, as the present one does, the beginning of the wall at Wallsend, and the supporting station not long since investigated at South Shields.

The work in its later form will be found of great value and service to the student of the largest Roman work in Britain, at home; and it will be strange if it does not inspire its reader, at some time or other of his life, to set out on a visit to some part of the wall, a tour which when once entered upon will lead to repetition again and again.

The portrait of Dr. Bruce is a welcome addition to the work, which has now a melancholy interest, for since its appearance this estimable man has passed away from the labours which he loved so well, and which he pursued with so much devotion.

E. P. Loftus Brock.

OBITUARY.

William Allen Boulnois, *Fellow.*

1823–1893.

The late Mr. Boulnois was born in London in the year 1823. Having entered the classes at King's College then known as the Department of Science applied to the Arts, Mr. Boulnois became a pupil of Mr. S. Smirke, R.A., from 1842 to 1845, and, after spending some few years in Italy and on the Continent in the study of his profession, commenced business in London in 1848, enjoying an extensive practice. His works are found in the City of London in various blocks of offices and several wharf and factory premises on the river Thames. His practice extended to Sweden, where the Baron Oscar Dickson's house at Gothenburg and another house at Oferöis were built some twenty years since, and to Italy, where the "Villa Clara" at Baveno Lago Maggiore—the house occupied by Her Majesty The Queen—was erected in 1872. Mr. Boulnois's latest public works in London are the Standard Assurance Company's Building in King William Street, near Lombard Street; Lord Radstock's Conference Hall, Eccleston Street, Belgrave Square, and the "Great Assembly Hall" in the Mile End Road, for Mr. Charrington, seating 5,000 persons; the works at Victoria Docks, for Louisa Lady Ashburton, the Mission Hall there being opened by H.R.H. the Duchess of Teck in 1888; and the Presbyterian Church at Mentone, opened by the late Mr. Spurgeon. He also practised as a Surveyor in valuation and compensation cases, and was a Member of the "Surveyors' Club," established 1792. In 1848 he was elected an Associate of the Institute, and a Fellow in 1859. He was a Member of the Council in 1865, and served for some years on the Statutory Board of Examiners under the Metropolitan Building Act 1855. Mr. Boulnois's high personal character, his commanding and genial presence, combined with his courteous conduct, inspired confidence, esteem, and respect, while his integrity in every matter in which he was engaged endeared him to all with whom he came in contact. The loss to the profession at large is great, and especially to his brother Members of the Surveyors' Club, by whom his memory will long be cherished. Mr. Boulnois is succeeded in practice by his nephew, Mr. Alfred E. Warner [*A.*], who has been in partnership with his late uncle for some years past.

John Myrie Cory, *Fellow.*

1846–1893.

The late Mr. Cory, of Shanghai, was born in 1846, and educated at Rossall, and at Pembroke College, Cambridge. After serving his articles with his father in Carlisle, he joined the office of the late Sir Gilbert Scott, R.A., where he remained until he entered into partnership with his cousin, Mr. Alex. Scoles. In 1873, he went to China to join Mr. Kidner, who was then practising at Shanghai. On Mr. Kidner's departure from Shanghai in 1875, Mr. Cory succeeded to the

practice, which he continued to carry on up to the time of his death—having carried out many works of importance. He was elected an Associate of the Institute in 1880, and a Fellow in 1886. Mr. Cory is described by Mr. Kidner as a man of considerable ability and great uprightness of character. He was twice married, and leaves a widow and young family.

Alfred Pope Strong, *Fellow.*
1834–1893.

Mr. Strong was the son of the Bavarian Consul to the Greek Court, and was born on the 20th September 1834. Educated at Cheltenham College, he was articled to Mr. Marchand of Hamburg (pupil of Chateauneuf & Hittorf). In 1859 he entered the office of the late Mr. T. H. Wyatt as improver, where he remained to the end of 1861, and then commenced to practise on his own account. He was elected Associate in 1861 and Fellow in 1869. He competed for several important buildings, and assisted Mr. Garling in his design for the Law Courts. He joined Mr. Samuel Parr in 1867, with whom he remained in partnership for twenty-one years. During that period his chief works were:—Additions to Somerset County Lunatic Asylum; St. Paul's Rectory, Chippenham; Luddenden Foot Church and Schools; Additions to Vicarage, New Parsonage, National Schools, Gravelly Schools, New Mill Schools at Tring; All Souls' Church, Vicarage, and Schools, Eastbourne; Buenos Ayres Grand Southern Railway Terminus. For years he was a contributor to the professional press, principally upon foreign subjects. His death happened rather suddenly on the 5th inst., through an internal ulcer from which he had suffered several years.

TERRA COTTA WORKS.

There are numerous fine works in this by no means *modern* material at Sir John Soane's Museum, and little known. Omitting the many examples of Etruscan and Greek vases, some in good preservation, there are specimens of Wedgwood's imitations; and the following:—

Model of a bas-relief in the arch of Constantine at Rome—"Morning," or the East. The original is about 8 feet diameter. Another of "Evening," or the West.

A bas-relief found in the ruins of Hadrian's villa near Rome.

A large vase. Several Greek terra cottas.

A large model of the Farnese Hercules.

The original model of the sculpture in the chapel at Blenheim, by Rysbrack, representing the surrender of the French General to the Duke of Marlborough—a remarkable alto-relievo of good execution.

Three small busts and three small bas-reliefs, all by John Flaxman, R.A.

The original model, by T. Banks, R.A., of one of his most celebrated works, Caractacus before Claudius.

A bas-relief from the Borghese vase, modelled at Rome by Flaxman in 1788.

Also three small minutely-worked bas-reliefs representing the War of the Giants, Feast of the Gods, and Death of Niobe's Children.

The above are taken from the "General De-"scription," but no doubt many more examples might be observed in the collection, which is open to the public free.

I am somewhat surprised that no mention was made in the discussion, or even in the Papers read,—at the General Meeting of the 27th ult., —of the use of terra cotta in the ornamental details at St. Pancras Church, worked in 1819–22 by C. and H. Rossi, and erected from the designs of W. and H. Inwood. The frieze for the Opera House in the Haymarket, also at other places, was executed in 1820 by George Bubb. I am referring herein to works of ornamentation, for it is only of late years that terra cotta has been deemed useful for constructive purposes, thrusting out its brother-chip of coarser material—brick—and endeavouring to supersede the more legitimate material—stone and its allies. It was truly said in the discussion that there was terra cotta *and* terra cotta.

WYATT PAPWORTH.

Mr. Lawrence Harvey's Masonry Classes.—The pupils of the Classes of Masonry have formed themselves into a College with the view of encouraging the study of masonry. One of the means to that end is the instituting of competitions open to all. In order to obtain a fund for prizes the present members of the College (most of whom are either clerks of works or foremen) will undertake to make models of masonry from architects' drawings, and give diagrams and necessary instructions for carrying out the work. A model of a Gothic star groined ceiling, comprising upwards of 200 stones, is now at the Institute. Every stone was worked direct from the drawing by the pupils of the class. When the stones were completed, they were carefully fixed together. Mr. Aston Webb has seen the model while it was being built up, and can bear witness that the stones fitted their places without any reworking *in situ*, a feat which masons are hardly ever able to accomplish. The vault is designed to fit the nave of Westminster Abbey, and rises to the same height; but in style it belongs to the Late Decorated style, with numerous ribs, bosses, and liernes. The spandrils between the ribs and liernes are made out of single slabs of stone, worked also direct from the drawing, and which are prepared for perforation in the form of delicate tracery. Architects wishing to avail themselves of the services of the College should write to Mr. Lawrence Harvey [*F.*], Master of the Classes of Masonry. Half of the fees paid for models are given, it is stated, to the Prize Fund, the other half to the workers.

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THE PROGRESSIVE EXAMINATIONS, MARCH 1893.

Presidential Statement to the General Meeting, Monday, 27th March 1893.

GENTLEMEN,—An Intermediate Examination to qualify for Registration as Student of the Royal Institute of British Architects was held here on Tuesday, Wednesday, and Thursday of last week. Of the 36 Probationers who applied, 31 (of whom one did not attend) were admitted, and 21 passed, the remaining nine having been relegated to their studies, for a period. The 21 passed candidates, placed by the Board of Examiners in order of merit, are:—

Name of Student	*Address of Student*	*Name of Master*
Stanley William Worth DELVES	23, Mount Sion, Tunbridge Wells	Messrs. Kidner & Berry.
Thomas Denton BROOKS	South Elmsall, near Doncaster	Mr. William H. Thorp.
Herbert Henry DUNSTALL	9, New Road Avenue, Chatham	Mr. George E. Bond.
Samuel Stevens DOTTRIDGE	Melita, Westbourne Rd., Bournem'th	Mr. John Donkin.
Harry Garnham WATKINS	Leyland House, Lincoln	Mr. William Watkins.
Charles Dixon ROCHESTER	16, Moor View, Newcastle-on-Tyne	Messrs. Hicks & Charlewood.
Edward COUPE	14, Royle Road, Chorley, Lancs.	Mr. G. B. Rawcliffe
Tom Williamson HOOLEY	40, Heaton Moore Road, Heaton Chapel, near Stockport	Mr. F. W. Mee.
John Charles SOUTHCOMBE	Barton Court, Arlington, near Barnstaple	Mr. Arnold Thorne.
John Douglas BLAND	203, Chesterton Road, Cambridge	Mr. W. M. Fawcett, M.A.
Charles Henry DORMAN	51, Abington Street, Northampton	Messrs. Brown & Fisher.
Henry Victor ASHLEY	Woodside Park, N.	Mr. William Dunn.
Arthur Joseph SINGLETON-SHAW	23, Campbell St., Newcastle-on-Tyne	Mr. W. Lister Newcombe.
Delmé George MOOTHAM	72, Old Christchurch Road, Bournemouth	Professor Banister Fletcher.
Francis Coleman HIGGINS	Sunnybank, Caterham Valley	Professor Banister Fletcher.
Herbert Cyril SINNOTT	St. Ives, Westbury-on-Trym, near Bristol	Mr. W. Bruce Gingell.
Thomas BULLEN	77, Roker Avenue, Sunderland	Mr. Wm. Milburn.
Harry Sutton CHORLEY, B.A. Oxon.	15, Park Row, Leeds	Messrs. Chorley & Connon.
Percy William MEREDITH	Carisbrooke, North Down Road, Bideford	Mr. Arnold Thorne.
Charles Edgar SALMON	Clevelands, Wray Park, Reigate	Mr. J. Douglass Mathews.
William SLATER	202, Radford Road, Hyson Green, Nottingham	Mr. Robert C. Clarke.

A Preliminary Examination to qualify for Registration as Probationer was also held on Tuesday and Wednesday of last week. There were one hundred and eleven applicants, of whom only three had been relegated from previous examinations; and of these 51 have been exempted. Of the remaining sixty, 32 attended at the Institute, 19 at Manchester, and 9 at Bristol. All the answers both written and graphic are being marked in London, and the results will be reported to the next General Meeting.

PROCEEDINGS.

Monday, 27th March 1893.

Eleventh General Meeting (Special).

[Mr. Currey, *Vice-President*, in the Chair.]

The usual preliminary business of a General Meeting having terminated, the first business on the agenda was taken, namely, "to receive and "consider a recommendation of the Council that "Mr. J. Macvicar Anderson, *President*, be re-"quested to allow himself to be nominated as "President for the ensuing year of office; and "that consequently By-law 26 be suspended."

I. Nomination of President for 1893-94.

The CHAIRMAN.—Gentlemen, I am happy to say that the President is in the House, but as the first business on the agenda relates to a matter personal to himself, I have been asked to take the Chair during your discussion of the first Resolution that appears upon your paper. You all know that By-law No. 26 provides that "No "President who has filled the office for two suc-"cessive years shall be again eligible for the "Presidency until the expiration of two years "from the termination of his tenure of office." It has occurred to the Council that Mr. Macvicar Anderson would be of very great service to the Institute if he served another year. (Cheers.) He has kindly consented to do so if it be the unanimous desire of the members that he should do so. You all know the ability with which he has discharged the duties of President, and you all know the kindness, and courtesy, and consideration which he has shown to all the members of the Institute. I therefore have no hesitation in asking you confidently to unanimously agree to the Resolution suspending By-law No. 26, so as to put us in a position at the proper time to re-elect Mr. Anderson as President. I will formally move the Resolution that By-law No. 26 be suspended. Will any gentleman second that?

Mr. JAMES BROOKS [*F.*].—Sir, I have the greatest pleasure in seconding the Motion.

Mr. LACY W. RIDGE [*F.*].—I should like to ask, Sir, why it is necessary that we should suspend the By-law, because we have a succession of men who have served the office of Vice-President; I think you yourself go out of office now as Vice-President, having served that office for four years, and I think some of us would like to enquire whether you would not be prepared to fill the office of President, which, I think, we should all be very delighted to see you occupy. (Cheers.) Without wishing to reflect in any way upon our present President, it appears to me that some little explanation is required as to why we should suspend the By-law, when it is so very apparent that the Senior Vice-President is a man who is eligible to fill the Chair of this Institute, and is a man whom we should all be pleased to see in this Chair. (Cheers.)

Mr. BROOKS [*F.*].—Gentlemen, this matter has been before the Council and has been considered. If Mr. Ridge was present (and I think he was) he will remember that all arguments upon the point were answered at that Meeting; and I think it is not at all proper at this time to speak upon that question.

Professor KERR [*F.*].—Sir, I think my friend, Mr. Ridge, cannot by any possibility be supposed to object to the Motion which has been submitted to the Meeting, and it would scarcely, I conceive, be in good taste to enquire into the reasons of the Council. I am quite sure that the Meeting would not wish you to make any answer whatever to the question that our friend has put. (Hear, hear.) The Council must occasionally be allowed a little licence, and I am quite sure that I am speaking the mind of very many of those who are present, when I say that we have no doubt that the Council have a very good reason for this proposal, and that we ought not to ask what that reason is. (Hear, hear.)

Mr. B. J. DICKSEE [*A.*].—I should like, Sir, to ask one question, without in any way disputing the advisability of this Motion. The same thing happened when Mr. Waterhouse was in office for two years. I should like to ask, therefore, whether it is intended to make a regular precedent of this. (No!)

Mr. RALPH NEVILL [*F.*].—Mr. Vice-President, I quite agree with what Professor Kerr has said. While I am quite disposed to accept the Council's advice upon this subject, I hope it will not be made a precedent, because it is so very easy in these matters to drift into a precedent; and it will be very difficult when you have re-elected one man to refuse to re-elect another. Therefore I hope the Council will stiffen their backs, and will not allow this to grow into a precedent. I have no doubt—or, at least, I am prepared to believe—that there are good reasons for it; but I think we should not depart from the rule in this matter without very grave cause for so doing. (Hear, hear.)

Mr. Wm. EMERSON [*Hon. Secretary*].—Gentlemen, there were one or two very good reasons why the Council were anxious for Mr. Macvicar Anderson to take office for another year if he was willing to do so. One reason was that Mr. Macvicar Anderson was the proposer of a scheme by which, at the present moment, we

anticipate that we shall save the Institute something like £500 a year in the cost of the publication of our Reports and Papers; and as he had looked into this matter most carefully, and it arose from his own suggestions, many members of the Council thought that it would be at least advisable that he should be acting as President while this particular object is being carried out. That alone is a sufficient reason. (Hear, hear.) Another reason is the great interest which you know he has taken in all questions concerning the Institute for many years past; and there are one or two questions coming on as to which it is very important to have as President some one who is thoroughly *au courant* and cognisant of the affairs of the Institute in all their details, and no person in the Institute or on the Council knows more about the affairs of the Institute than Mr. Anderson. I think those two reasons alone are sufficient to warrant our asking him to become President for another year.

Mr. CHARLES BARRY [*F.*].—Mr. Chairman, our difficulty, I think, is not so great as it seems to be. It is not our desire, of course, to create, in a backstairs kind of way, a precedent; nor is it at all necessary to consider that question, because that need only come up when the occasion arises; but the very fact that you, Sir, are a member of the Council who have, as I understand, unanimously recommended this course, seems to preclude all kind of difficulty on our part. If that had not been so we should have been in some degree of difficulty, because we have such uncommonly good men to choose from. (Hear, hear.) Mr. Anderson is a first-rate President; and I am perfectly certain from my many years' knowledge of you, Sir, that, as far as my humble opinion goes, you would be an equally good one. (Cheers.) But at the same time, you having consented to take the chair and to make this proposition seems to take the wind out of the sails of that idea altogether; and I think we can only believe that the Council have been well advised amongst themselves, and amongst others well advised by you, Sir, to take the course which you propose to the Meeting. It is quite consistent with all that I know, and that we all, I am sure, know of the character of our dear friend who is in the chair at the present moment—we know the extreme modesty of his character, and we also know his great capacity—but for the reasons to which I have ventured to allude I think we cannot very well do wrong in accepting the advice of the Council; and I would just venture to say this, that unless it is something like a unanimous vote of the Institute it will be no compliment to Mr. Anderson. (Hear, hear.)

Mr. W. Kidner [*F.*].—Mr. Chairman, nobody has a higher opinion of Mr. Anderson than I have, but I think it would be rather invidious for us to go out of the regular course to re-elect him as the President for this year when there are other gentlemen who are equally eligible. I think it would be rather invidious by-and-by if we did not re-elect as President somebody else who had done good service to the Institute after his proper term had expired. It is not as if we were hard up for persons eligible for the office; we are not by any means, and, good man as Mr. Anderson is, I propose, Sir, that he should not be re-elected.

Mr. RIDGE [*F.*].—I most sincerely hope that the proposition which has just been made will not be seconded (hear, hear). Nothing could have been more thoroughly misunderstood than the object with which I asked that question. I asked the question in order that the Meeting might know the reason for departing from the rule; and although I was not present when the matter was discussed at the Council, as Mr. Brooks seems to think, I believe the reason is that you, Sir, have refused to accept the office. That was the explanation which I expected to have, and it would have been an explanation that would have been perfectly sufficient, and would have seemed to me a very proper reason for departing from the rule; but I do not think that the Institute should suspend this by-law as a matter of course without some sufficient reason (hear, hear).

Mr. WM. WOODWARD [*A.*].—Mr. Chairman and Gentlemen, I believe I am not betraying any profound secret when I say that a gentleman whom many of us hope to see occupy that chair has expressed his entire approval of the continuance in office of Mr. Macvicar Anderson. (Hear, hear.) The gentleman to whom I refer has done an immense amount of work in the best interests of this Institute, and, as I have said, most of us here desired to see him this year occupy that chair; but the state of his health, and his desire that Mr. Macvicar Anderson should continue the good work done by the President, has led him, Sir, to express his entire concurrence in the continuance in office of Mr. Macvicar Anderson. I need scarcely say that the gentleman to whom I refer is Mr. Arthur Cates (hear, hear), and I hope that Mr. Cates will not consider that in saying these few words I have broken any confidence. Even if he does think so, I felt it my duty, after the observations which have been made, to rise for the purpose of making these few remarks. (Hear, hear.)

The CHAIRMAN.—Gentlemen, I can only say that I am very much obliged to the friends who have spoken so kindly of me personally; but I think, after the observations which have been made, it is not necessary for me to go further into the subject. I will only add that at the Council I had the pleasure of proposing that Mr. Anderson should fill the office for another year (hear, hear), and I am quite sure that he will be a much more worthy President, and much more *au courant* with your work and interests, than I can possibly be. (No, no.) Is it your pleasure, Gentlemen, that By-law No. 26 should be suspended for a year?

The motion was carried unanimously by acclamation of the Fellows present, and amid cheering; and shortly afterwards the President, having entered the room, was addressed by the Vice-President in the chair, as follows:—

The CHAIRMAN.—Mr. President, in the first place we have all to thank you for having kindly

consented to serve another year as President, and I have the pleasure of informing you that it has been unanimously resolved that By-law No. 26 should be suspended, as being the first step to put us in a position to carry out the election at the proper time (cheers).

THE PRESIDENT.—I have to thank you much, Mr. Currey, for the kind words in which you have conveyed to me the decision of the Institute, and I have gratefully to acknowledge, Gentlemen, your generous vote as regards myself. It would be folly and affectation to conceal from you that the reception of your decision creates in my mind somewhat mingled feelings. Do not think me ungracious in saying so. But the endeavour to fill the office of President of this Institute conscientiously occupies perhaps more time and more thought than some of you imagine (hear, hear); and I had, I confess, been looking forward to next June as a period at which I might have handed over to a worthy successor the trust that you have reposed in me. Do not think that in saying this I derogate from the honour of the position for one instant. When you were good enough to elect me your President, I esteemed it a high honour; and, having deemed it so, you may well imagine that I esteem it a still higher honour that you should consider it desirable to suspend a portion of our constitution in order that you may secure my services for another year. When I became aware by the vote of the Council that it was their unanimous wish that this course should be adopted, and when I now learn from Mr. Currey that you have adopted their recommendation, I at once put aside all personal considerations, and have only to say that I shall use my best endeavours during another year—as I have endeavoured, however inadequately, in the past—to fulfil the duties of this high office in such a way as to safeguard the interests of the Institute, and at all times worthily to represent you. (Cheers.)

Mr. Currey having vacated the chair, it was taken by the President, who asked the permission of the Meeting to announce the results of the Intermediate Examination just held [see p. 253 *ante*].

II. Nomination and Election of Candidates for membership.

THE PRESIDENT.—Gentlemen, you will remember that at the General Meeting held on the 13th June last year, a Resolution was passed adopting the Report of a Special Committee, which Report had been carefully considered beforehand, in regard to the nomination and election of candidates for Fellowship. In the notice convening the Meeting, the Resolution and the Report, as well as proposed alterations to By-laws 7, 8, and 9, are set forth as follows (taken as read):—

To receive and consider recommendations of the Council to alter certain By-laws in pursuance of a Resolution of the Business General Meeting held 13th June 1892, as follows:—That (1) The Report of the Special Committee appointed by the Council in pursuance of the Resolution of the Annual Genera Meeting held 4th May 1891, to consider the provisions of By-law 9, which Report has been printed and circulated to all members, be received and adopted; and that (2) the Council be requested to prepare modifications of the By-law in accordance therewith, and take the steps necessary to obtain the desired alterations.

At that General Meeting, of the 13th June 1892, the several clauses (*a* to *g*, both inclusive) of the Report referred to in the foregoing Resolution were adopted as follows:—

a. That as regards non-Metropolitan candidates whose nomination forms have not been sent up through the Allied Society of the District in which the candidate practises, such Society shall be at once informed of the candidature, and invited to communicate confidentially any observations thereon.

b. That before the investigation of candidates' nomination forms is completed by the Council, the name and address of every candidate shall be suspended in the meeting-room of the Royal Institute, and published in the *Journal of Proceedings*, with a notification that any objection thereto, or other confidential communication, should be sent to the Council within ten clear days from the date of issue of that number of the *Journal*.

c. That the investigation by the Council provided for by By-law 7 shall not be completed, nor the candidate be approved by the Council, until after fourteen days from the preliminary publication of the name in the *Journal*.

d. That upon the completion of the investigation, and the candidate having been found by the Council eligible and qualified according to the Charter and By-laws, and approved by them, the nomination shall be signed by the Chairman of the Council Meeting at which such nomination is approved.

e. That such nomination shall be read at a General Meeting, shall be at once suspended in the meeting-room, and remain there suspended until the day of election, which shall be the Business Meeting succeeding the General Meeting at which the nomination was read, the names and addresses of the candidates, together with the names of the proposers, being printed in full in the notice convening such Business Meeting.

f. Unless a requisition in writing, signed by not less than three subscribing members, the majority of whom shall be Fellows,—that the votes for the whole of the candidates then offering themselves for election, or for any one or more specified candidates, be taken by voting papers as provided in article *g*,—be delivered to the Secretary not less than fourteen clear days before the day of election, the election shall be by show of hands in accordance with the provisions of the final paragraph of By-law 62.

g. In the event of any such requisition being so delivered, the election shall be by voting papers —which shall state the names and addresses of the candidates and the names of their proposers, and be furnished with columns for affirmative and negative votes—to be at once issued to all members resident in the United Kingdom, to be returned not later than three clear days before the day of election, to be

then examined by three scrutineers appointed by the Council, who shall report to the Business Meeting the names of the candidates elected—negative votes, in the proportion of *one* negative to *four* affirmative, excluding from election.

The Council recommend the alteration of By-laws 7, 8, and 9 as follows:—

By-law 7 as proposed to be altered.

The nomination of every applicant for admission to any class of membership must be forwarded to the Secretary for submission to the Council, who shall inquire into the fitness and qualifications of the applicant so nominated; and, in the case of a nomination of any person residing in a district or province where there is an Allied Society as hereinafter defined, but whose nomination has not been forwarded through such Society, the Secretary shall send notice thereof to such Allied Society, and invite observations thereon. The name and address of every applicant for candidature shall be suspended in the Meeting-room and published in the Journal of the Royal Institute, with a notification that any objection or other communication must be sent to the Secretary for submission to the Council within a period from the date of such publication to be fixed by Regulation. If, after due investigation of the claim of such applicant and of any objection thereto, the Council approve him, and find him to be eligible and qualified according to the Charter and By-laws, he shall be admitted to candidature, and his nomination shall be signed by the Chairman of the Council Meeting at which such nomination is approved. The nomination shall be read at a General Meeting, and forthwith suspended in the Meeting-room of the Royal Institute until the day of election. The name and address of the candidate, with the names of his proposers, shall be printed in full in the circular convening the Meeting at which such election is to take place. Any communication respecting applicants for admission to candidature, or respecting candidates for election, received by the Council, shall be treated as confidential.

By-law 8 as proposed to be altered.

The election of candidates shall (except in the case in which special provision is made in By-law 9) take place at Business Meetings only, and in no case until due notice thereof has been given in the circular convening the Meeting.

By-law 9 as proposed to be altered.

The voting at elections shall be by show of hands, and a candidate shall be elected if supported by a majority of those present having a right to vote and voting at such election. Provided always that if a requisition in writing, signed by seven or more Fellows and Associates (the majority of whom shall be Fellows), be delivered to the Secretary not less than fourteen clear days before the Meeting at which such election is to take place, that the votes for the whole of the candidates, or for one or more specified candidates, be taken by voting papers, then the election or elections of such candidates shall be so conducted. Voting papers shall then be issued to all Fellows and Associates resident in the United Kingdom, and shall be returned to the Secretary so that the same shall be received by him at the latest on the Thursday evening before such Business Meeting as aforesaid, folded and enclosed in a sealed envelope bearing on the outside the signature and Royal Institute serial number of the member voting. The Council shall appoint three Scrutineers, the majority of whom shall be Fellows, and of whom two shall form a quorum, and such Scrutineers shall be summoned by the Secretary to meet at the premises of the Royal Institute, and at such meeting he shall deliver to them the said envelopes, which shall be opened and the voting papers taken therefrom without being unfolded, the Scrutineers adopting such further measures as they may deem fit to prevent the identification of the voters. The Scrutineers shall then examine the voting papers, count the votes, and report to the Royal Institute at any General Meeting the names of the candidates elected—negative votes in the proportion of one negative vote to four affirmative votes excluding from election. The decision of the Scrutineers or a majority of them shall in all matters relating to an election be final.

Mr. LEONARD STOKES [*F.*].—Sir, may I rise to a point of order? Are we not rather placing the cart before the horse? Would it not be better if we first considered what gentlemen we intend to make Fellows, and then considered the way in which we are going to elect them? It seems to me that if we pass this Regulation, or this Declaration, or both, or neither, it must make considerable difference to the manner in which we elect the Fellows afterwards. Therefore I would venture to suggest that the proper thing to do is, first, to settle what kind of men we are going to elect as Fellows, and then afterwards to settle the manner in which we are going to elect them. It strikes me that that would be a good course to adopt. [The PRESIDENT.—You wish me to rule?] I should like to hear, Sir, whether you agree with me or not.

The PRESIDENT.—We have proceeded throughout this matter upon a certain course, and this subject that is now brought before you has had priority of the other; and I think we must adhere to the course that we have laid down throughout, and proceed with the business in the manner in which it is laid down. (Hear, hear.) I need not trouble you with the details of the Report of the Special Committee, because those you had before you last year. The business now before us is the Report of the Council upon the subject. The Council were requested to prepare modifications of the By-law in accordance with the Report of the Special Committee, and to take the steps necessary to obtain the desired alteration. The Council have prepared revisions of the By-law affected by this question, and you have had an opportunity of reading the papers, which have been issued to you. That is the business now before us. If any one has any remarks or observations to offer in regard to the proposed revision of By-laws 7, 8, and 9, I shall be glad to hear them.

Mr. EDWIN T. HALL [*F.*].—Sir, I rise to a point of order. As I understand it, these proposed alterations are before us in the nature of the Report from the Council to the General Meeting, and not for adoption as By-laws now. I think

you gave a pledge, Sir, that when the matter came up all the Associates would have the opportunity of speaking and voting upon this matter, and if these are to be alterations in the By-laws now they cannot vote. Therefore, I understand that this is to be the Report of the Council for the consideration of this Meeting, and that the adoption of the By-laws, as such, would come up at the later Meeting. [THE PRESIDENT.—There is a second Meeting at which they have to be confirmed before they go to the Privy Council.] That does not meet my point, Sir, if you will excuse my saying so. The By-law says that on the alteration of a By-law none but Fellows can vote; and I think you, Sir, gave a pledge that when the matter came up the whole Meeting—Associates as well as Fellows—should have an opportunity of expressing their opinions and voting upon the question of the desirability or otherwise of these alterations. (Cheers.)

THE PRESIDENT.—I do not remember that I did give such a pledge. If I did it must, of course, be in the Report. [MR. HALL.—I simply rise, Sir, to ask you the question.] If I gave any such pledge, it would have been in contravention of the vote of the Institute on the 13th June adopting the Report, all that was left being to carry out the procedure. That is my impression.

MR. LEONARD STOKES [*F.*].—You certainly, Sir, gave such a pledge; that is my recollection. I agree with Mr. Hall's statement that you, Sir, gave the pledge that the Associates should not be debarred by the action of the Meeting from having a further voice in the matter.

MR. B. J. DICKSEE [*A.*].—Sir, I think Mr. Hall is under a misunderstanding. I believe that at the Meeting the point raised was whether or not the Associates could discuss the point then—at that last Meeting—and it was held that they could; but it was stated that when the alteration of the By-laws came up we could not vote.

THE PRESIDENT.—It was in regard to the question of the poll. The record of the proceedings is as follows: "The President then stated his "opinion that the effect of the Resolution just "passed was to refer certain questions contained "in the Report which the Meeting had adopted "to the Council to consider, and then bring up "again in a concrete form. When that was done "a demand for a poll would be legitimate, but "was not so at present." That I remember.

MR. BERESFORD PITE [*A.*].—May I remind you, Sir, that I presented a demand for a poll on the decision as to that resolution, and I do not think I am wrong in saying that on an intimation from you that the Associates would have another opportunity of voting upon this matter when the Council had brought up their recommendations, that demand for a poll was withdrawn on those conditions. (Cheers.)

MR. ASTON WEBB [*F.*].—I must say, Sir, as I had some part in it, that my recollection is very much the same as Mr. Hall's: that the understanding was that this would come up as a recommendation, and that if it was passed by the Meeting, it would then come up as an alteration of the By-law, and I think there was an understanding at the time that it should be brought before the Meeting in such a form as to enable the Associates to vote. I have a distinct recollection of it. (Cheers.)

MR. JOHN SLATER [*F.*].—Is it not quite clear, Sir, that the Associates have full power to discuss and speak upon the subject?

PROFESSOR KERR [*F.*].—Sir, the proposal is not to alter the By-law. That must come on afterwards. The proposal now is to approve or disapprove of the recommendation of the Council, but not to alter the By-law (hear, hear). I think Associates can vote upon that. [THE PRESIDENT.—But the recommendation of the Council is a proposed alteration of certain By-laws.] It is a proposal. I indicate a distinction. What we have to discuss to-night is the expediency or inexpediency of going further with these alterations. The alterations will be brought forward formally afterwards, and then the Fellows, as I suppose, alone will vote.

THE PRESIDENT.—I am the last man in the world, as you may suppose, to wish to draw back from anything I have said. (Hear, hear.) I have no such intention whatever; I am quite willing to believe what you represent. But I desire clearly to understand what you now wish. As I understand, it is that the whole Meeting should have the opportunity of discussing this matter. Is that so?

MR. SLATER [*F.*].—Sir, I rise simply to avoid a misunderstanding. It would in my humble judgment have been very wrong if we had proceeded with this matter, and Fellows only had voted; and I think the Associates would have felt that they were placed in a wrong position. I understand this to be a Report of the Council recommending the alteration.

THE PRESIDENT.—The notice given is "to "receive and consider recommendations of the "Council." The Meeting of course is asked to receive them and consider whether they are worthy of approval.

MR. BERESFORD PITE [*A.*].—I should like to know, Sir, whether it is intended to-night, after the discussion, to propose the alteration of the By-laws, because I venture to suggest that that would be an infraction of the understanding to which we came on the former occasion. If it is proposed merely to discuss the alterations and not to put them to the Meeting, there would be no such infraction.

MR. T. M. RICKMAN [*A.*].—Sir, is it not possible for us to discuss the reception of the Report from the Council, and for the Associates to vote upon that? If the whole Meeting decide that we receive the Report of the Council, and desire to adopt it, then the Meeting can vote on the subject of altering this By-law, and on that Fellows can vote its adoption. [PROFESSOR KERR: Both votes to-night?] Yes; why not?

THE PRESIDENT.—If we get to work, there is some chance of both votes being taken, but not otherwise. We will proceed to consider the recommendations.

Mr. CHARLES BARRY [*F.*].—Mr. President, it strikes me that inasmuch as these recommendations of the Council have been before every member of the Institute now for ten days or more, probably every gentleman in the room is quite prepared to express his opinion upon them when they are duly put; and I presume that in your discretion you will put them separately so as to elicit separate opinions upon each, inasmuch as they have different bearings. But while that discussion under the notice issued for this Meeting very properly takes place, and may be as wide a discussion as any of the gentlemen here would desire that it should be, there does not seem to me to be any such difficulty or irregularity as Mr. Hall appears to apprehend, in, after that discussion, putting the adoption or non-adoption of the advice of the Council. The Fellows, who alone would then have the power of voting, would have been assisted by the advice given to them and the opinions expressed by gentlemen who did not vote; and I am quite sure that on this, as on all other occasions, they will give those opinions every possible consideration, and that those opinions will very much influence the vote. But it does seem to me to be a waste of time not to endeavour to come to something like a conclusion to-night, so far as the competence of this Meeting enables it to do so, and I venture to think that its competence is rather assured under the terms of our Charter and By-laws; and in consideration of the due notice which has been given of the subjects which are now about to be brought before us, I hope, Sir, that you will see your way to rule that, after due discussion (and by all means let us have due discussion), these propositions of the Council, either in their present shape, or amended, as they may be, after discussion, may be really ratified; otherwise we seem to be unnecessarily wasting time. (Hear, hear.)

Mr. STOKES [*F.*].—After this discussion, do you not think, Sir, that there was something in what I said, that we had better adjourn the discussion of the first subject (No, no)—that of "II. "Nomination and election of candidates for mem-"bership," until after we have discussed "III. "Qualifications of Fellows"?

The PRESIDENT.—No, I do not think so. I have already ruled that we should proceed with the business in the form in which it appears on the notice paper.

Professor KERR [*F.*].—In order that we may get on, I will move that the proposed alteration of By-law 7 is satisfactory to this Meeting.

Mr. BARRY [*F.*].—In order to bring it fairly under discussion, although I have not had anything to do with this matter at all, not now being on the Council, I will second Professor Kerr's motion.

Mr. HALL [*F.*].—Mr. President, I do not want to appear here as in any way opposing this alteration. I was one of the Committee who signed the Report on which these propositions are based, and therefore I hope any small suggestion that I make will be accepted as a contribution towards the settlement of the question. There is one matter which I think it is desirable to have made clear, and that is about the middle of the proposed alteration of By-law 7: "If after due "investigation of the claim of such applicant, and "of any objection thereto, the Council approve "him." The general effect of these alterations is undoubtedly to throw much more largely into the hands of the Council the election of Fellows. I know that is not technically so, but in fact I think it is so; and therefore perhaps it would be desirable that we should know whether a simple majority in the Council would be sufficient to approve of the nomination of a member, or whether the Council propose any procedure by which there shall be some majority of the Council, because it is conceivable that a Council meeting might be held when there might be very few members present, perhaps only a quorum; that is to say, I think, six, speaking from memory. Supposing, for instance, there were only seven members of the Council present, it would be quite possible that four might be for and three against. That, I think, would not be desirable. We should all wish, I have no doubt, loyally to adopt whatever came to us as a recommendation from the Council when a man was nominated; but if only four voted for him and three against him that would be such a slight majority that any nomination based upon it would not have the weight that it would have if we knew there was a larger Council and a better majority. With a view to bringing the matter to an issue, I would suggest that it is desirable that the quorum when men are nominated should be fixed, as I think it is in By-law 23, when a man is expelled. Under that By-law there must be at least twelve present, and the decision must be by a majority of at least two-thirds of those present. I will not say that the majority should be two-thirds, but it might be desirable that there should be a certain majority so that we might have, so to speak, an authoritative declaration of a majority of more than a single member in the Council when a man was nominated. That is all that I have to say upon that particular point. My only desire is that we should get at all events a quorum of twelve, as in the case of suspension or expulsion; and the question is, whether it is not desirable that we should have something more than a bare majority of the Council.

Mr. J. DOUGLASS MATHEWS [*F.*].—Sir, I will second Mr. Hall's amendment.

Mr. RALPH NEVILL [*F.*]—I venture to suggest that though what Mr. Hall says is no doubt correct in theory it is not necessary in practice, because it would end in the election of men who were perfectly qualified being postponed. I think we may fairly trust the Council in a matter of this sort. If four were for and three against they would say "This is a matter for consideration; "we had better postpone it." As I say, that is a matter which we ought to trust to the Council; I do not think they would force it upon us against our will. If they did they would certainly hear of it again, because those who opposed it would be sure to protest against it.

Mr. J. J. STEVENSON [*F.*]—Sir, I may say that in Societies where the election of candidates

for membership is by a Committee, it is a condition that a certain number of the Committee shall be present at an election.

Mr. STOKES [*F.*].—Sir, I was going to suggest that instead of this matter being left to the Council a special Committee should be appointed for the purpose. There is a Committee or Board of Examiners which deals with the Associates; why should there not be a committee elected for the purpose which should deal with the Fellows? It seems to me that that would be only reasonable. The Council are elected to carry out various kinds of business. The qualification of a Fellow is a simple matter, and might be left in the hands of a committee.* It seems to me desirable that the Institute should know exactly what men are elected Fellows and what their qualifications are, and that it would be more likely to obtain that knowledge by means of a small committee than by its being left to a large Council, which varies according to the gentlemen who happen to attend particular meetings. I would, therefore, suggest that instead of its being left to the Council, a committee should be formed in the same way that the Board of Examiners is formed.

Mr. SLATER [*F.*].—I submit, Sir, that that is a most undesirable proposition. Far more general interest is taken in the election of members in the Council than could possibly be taken by any committee. [Mr. STOKES [*F.*].—I should have said, a committee appointed by the Council, in the same way as the Board of Examiners of candidates for Associateship is appointed by the Council.] If you cannot trust the Council to carry out such a duty as that, it is perfectly certain that you cannot trust any committee (Hear, hear); and I think it would be far better to leave it as it is. With regard to Mr. Hall's suggestion, I think there is a good deal to be said for it, because, although there may never have been occasions in which there has been so small a Council as a mere quorum of six members, it might occur. It is, however, a matter that may be left to the Council to make a Regulation upon, and I do not think it is necessary to put it in this By-law. It would be far better to leave it to be decided by Regulation of the Council than to have a hard and fast rule (Hear, hear).

Mr. S. VACHER [*A.*].—If I may say a word, Sir, in answer to what Mr. Slater has said, that we must trust the Council, I would suggest that this whole difficulty of blackballing is on account of the Council not considering the qualification of Architects—the qualification that we possess at the present moment. The qualification that the Council have to take into consideration is that a man should have been for seven years in practice as an architect; and you have to remember that a man's work is not to be taken into consideration. The whole difficulty of blackballing, the whole difficulty of this Meeting, has arisen through what many members consider the lax way in which the Council have in years past read this qualification, so that they have admitted men who should not have been admitted, who are only half architects, who are, in fact, surveyors, and are not wholly architects, the architectural qualification in many cases having been entirely absent.

Mr. BARRY [*F.*].—May I ask your ruling, Sir, whether our good friend, Mr. Vacher, is in order?

The PRESIDENT.—I do not myself think he is. He is travelling over the whole question, and not dealing with the point that is before the Meeting. The only amendment that I have before me is the amendment moved by Mr. Hall.

At this moment Mr. Beresford Pite interposed, stating that he also had an amendment to move, and Mr. Stokes asked that his suggestion that a committee appointed by the Council should examine the nominations of applicants for Fellowship, and that the matter should not be left to the Council, might be treated as an amendment. The President having acceded to the request, Mr. Stokes's amendment was seconded.

Mr. VACHER [*A.*].—Sir, may I be permitted to give my reason for seconding the amendment that the inquiry into the nomination of Fellows should be by a Committee chosen by the Council? I think the Council should elect the Committee, or else it will simply be the work of the Secretaries. Our Honorary Secretary has enough to do without having to make inquiries about every man who is presented for nomination; and I think it is a power which should certainly not be put into the hands of a permanent official. If we have a small Committee they will do the business more thoroughly, and the gentlemen will know who is inquiring about them, and that will give more satisfaction. Therefore I beg to second the amendment.

The PRESIDENT.—It has been moved by Mr. Leonard Stokes, and seconded by Mr. Vacher, that, as I understand it, in place of the recommendations of applicants for Fellowship being considered by the Council, the Council are to appoint a Committee for the purpose of dealing with such applicants.

The amendment having been put, was lost, 10 voting for it.

The PRESIDENT.—Now I will take Mr. Hall's amendment, which is, "That the procedure "of By-law 23 be adopted in regard to——"

Mr. HALL [*F.*].—May I simplify it, Sir, by proposing that there shall be a quorum of twelve whenever the Council have to consider applications for Fellowship, and that a majority of two-thirds of those shall settle it?

Mr. DICKSEE [*A.*].—I think it is extremely unnecessary to have a large majority to elect a member; it is a very different thing from getting rid of a member. We might say that there should be a quorum of twelve, but it would be very invidious to say that there must be a majority of two-thirds. I hope Mr. Hall will adopt that suggestion.

Mr. HANSARD [*F.*].—I hope, Sir, that such an amendment will not be adopted at all, because the working of the Council would be quite impossible if you were to specify any distinct number of the Council who are to be present at such an

election. It would upset the working of the whole body. The Council are numerous, and you should trust your Council, and trust them as gentlemen who come forward to do their duty. Never in my long experience of the Council—and I speak now almost as an antediluvian on the Council—have I known them do their work otherwise than most religiously as regards the nomination of candidates that apply to them, and it would be cruel to ask them to waste their time in waiting till a quorum of twelve is formed on such a subject as this, and then to bind them to a majority of two-thirds. I pray you not to consider this proposition—the By-law is, I think, a good one as it is laid down—but trust to the honour of those gentlemen whom you elect on the Council to do their work properly.

Mr. HALL [*F.*].—I wish to say, Sir, that there is no question of honour involved. I am not impugning the honour of the Council; nothing is further from my thoughts.

The PRESIDENT.—I will put the amendment of Mr. Hall, which has been seconded by Mr. Douglass Mathews. [Mr. H. G. TURNER [*A.*].—May I ask, Sir, whether Associates can vote on this amendment?] I am quite willing to bow to what appears to be the opinion of some of my colleagues and the majority, that Associates should vote on this question, on the ground that it is merely considering recommendations of the Council, and not altering a By-law.

The amendment was lost, 32 voting for and 51 against.

Mr. B. PITE [*A.*].—I have an amendment to move, Sir. I venture to move that the clause beginning at the fifth line should be omitted altogether. The words are: "and, in the case of a "nomination of any person residing in a district "or province where there is an Allied Society as "hereinafter defined, but whose nomination has "not been forwarded through such Society, the "Secretary shall send notice thereof to such "Allied Society, and invite observations thereon." I will not detain you with many words, but simply move that those lines be omitted, on the ground that, as we are getting rid of the ballot, we shall be establishing an inquisition. I think the alteration will read easily, and the Institute will be safeguarded because the Council can make those inquiries if they wish to do so; they are to make inquiries into the fitness and qualifications of the candidates, but the invidiousness of referring to an Allied Society in the case of a man who is not a member of that Society will be avoided. I see some difficulty if those words are adopted, especially in a small country town, where a man may be in small practice.

Mr. DICKSEE [*A.*].—Sir, I have the greatest pleasure in seconding this amendment. The Council can do what they please in making inquiries, but I think it would be invidious to bind them to send notice to an Allied Society.

The PRESIDENT.—Are you losing sight of the fact that that has been already passed by the Institute? The first Clause of the Report of the Committee is: "That as regards non-Metropolitan "candidates whose nomination forms have not "been sent up through the Allied Society of the "district in which the candidate practises, such "Society shall be at once informed of the candi-"dature, and invited to communicate confidentially "any observations thereon." It is merely following out what has been already adopted by the Institute, and therefore, as I read it, Mr. Pite does not appear to me to be in order.

Mr. B. PITE [*A.*].—I voted, Sir, against the adoption of that Report, and I urged upon the Meeting of last June that this was a matter that ought to be laid before all the members by voting papers, feeling the great importance of not doing away with the ballot by a mere meeting of the London members. I venture to say that if it is open to me again to move that this very difficult matter be referred to all the members of the Institute by voting papers, I should prefer to do it in that way; but, in the absence of that, I should like to claim the right, if I may, of moving my amendment.

The PRESIDENT.—Your proposal is tantamount to rescinding a resolution that the Institute has arrived at. You cannot deal with it at this Meeting.

Professor KERR [*F.*].—If the word "shall" were made "may," would not that suit the purpose of the Institute just as well?

Mr. HALL [*F.*].—Sir, I hope this amendment will not be adopted. This resolution was carried unanimously after a great deal of discussion by the Committee. There are many reasons for it, and among them I may mention what is a precedent of value, that it is the practice in the American Institute of Architects; this procedure is there practised. Then another reason is that it adds to the dignity of the Institute, and adds to the ties that bind us to the Allied Societies if they find that they are consulted in a matter that is as vital to their interests as it is to ours, namely, as to persons who shall be made Fellows. Therefore, I hope there will be no such thing as a rescission of the resolution that the Institute passed last year to such effect.

The PRESIDENT.—I have every wish to treat my friend Mr. Pite with the utmost deference and latitude, but I do not see how I can possibly put his amendment. The resolution was deliberately arrived at by the Institute, and I cannot, without notice given, allow an amendment to be put which would knock it on the head. Therefore, if there is no further amendment to be moved, I will put the motion of Professor Kerr, which has been seconded by Mr. Barry.

Mr. HALL [*F.*].—Sir, I did give notice of a little addition, which I think will meet with general satisfaction—that is, at the end to add the words "which shall be privileged." If information is given *bonâ fide*, the man who gives it is open to an action for libel; and he should not be open to an action for libel when he is doing that which it is incumbent upon him to do as a member of the Institute. Therefore I suggest that those words should be added at the end. I venture to think it would have this effect, because we

do all of us as a fact bind ourselves by the By-laws so long as we remain members of the Institute; and if we enter into an agreement among ourselves, then any communication that we send to the Council is binding upon us, whatever the lawyers may say.

After some remarks which were inaudible to the reporters, Mr. Hall withdrew his proposal.

THE PRESIDENT.—Then I will put the motion by Professor Kerr, seconded by Mr. Barry, that the recommendation of the Council respecting By-law 7 meets with the approval of this Meeting.

The motion was carried, 57 voting for and 1 against it.

The recommendation of the Council respecting alterations of By-law No. 8 was also approved, on the motion of Mr. Ridge, seconded by Mr. Hall, only one hand being held up against it.

The recommendation of the Council respecting alterations of By-law No. 9 was then considered, Mr. Ridge proposing, and Mr. Brooks seconding, a Motion to approve it.

MR. HALL [*F.*].—I rise, Sir, simply to suggest the addition of three words about the middle of the By-law as proposed to be altered, that the Council shall appoint "not less than" three scrutineers. It might occasionally happen that there was too much work for three to undertake, as we have found in other elections. [MR. RIDGE.—That was laid before the Council, and I think they were willing to accept it.] Then, towards the end, "at any general meeting," should not that be "at the next general meeting"?

THE PRESIDENT.—No. There is a Regulation proposed which will follow, and which puts that right, and it is better to omit details of the kind from a By-law. But the Council accept Mr. Hall's proposal to add the words "not less "than" three scrutineers, instead of limiting the scrutineers to only three.

The recommendation was consequently approved, with the modification accepted by the Council as stated by the President.

MR. RIDGE [*F.*].—Sir, would it not be in order to propose that these modified By-laws be adopted? The Council recommendations respecting them have now received the sanction of this Meeting, and I think we might proceed to their adoption. This is a point upon which Fellows only can vote, but they have now the assent of the Associates to that which the Council propose, and I think we shall all feel very much more comfortable in having the approval of the Associates respecting that which we are proposing to do. [THE PRESIDENT.—Do you move that?] I move that these three By-laws as amended be now adopted as alterations of By-laws Nos. 7, 8, and 9.

MR. BARRY.—I am very glad, Sir, to second Mr. Ridge's motion.

The motion having been put from the chair, was carried unanimously, only Fellows voting.

MR. RIDGE [*F.*].—I will now propose, Sir, if I may, that the Regulations which have been brought forward by the Council be approved, and I think with regard to them, I may also say adopted, because there is no distinction in the voting.

MR. SLATER [*F.*].—I beg leave to second Mr. Ridge's motion.

The Regulations made by the Council for carrying into effect By-laws 7 and 9 (as altered), pursuant to clauses of the Report and the resolution adopting it, hereinbefore inserted, which regulations were submitted for confirmation in accordance with the terms of By-law 33, were thus worded:—

By-law 7.

[Clause *b.*]

Any objection to an applicant for candidature whose name and address are published in the *Journal of the Royal Institute*, or other communication respecting him, must be sent to the Secretary for submission to the Council within ten clear days from the date of issue of that number of the *Journal*.

[Clause *c.*]

No nomination of any applicant for candidature shall be approved by the Council until after the lapse of at least fourteen days from the date of the publication of his name and address in the *Journal of the Royal Institute*.

[Clause *e.*]

The day of election shall be the first Business Meeting held after the expiration of twenty-one days from the General Meeting at which the nomination was read.

By-law 9.

[Clause *g.*]

The voting papers shall state the name and address of every candidate, with the names of his respective proposers, and be divided into columns for affirmative and negative votes, such votes only to be counted as are marked in such columns.

MR. HALL [*F.*].—I am very sorry, Sir, to rise to a point of order, but I would suggest that though these Regulations may be considered now, they can only come into force when the By-laws have been adopted, which means after a subsequent meeting. If the Regulations are officially adopted now, they come into force at once, and that I think would be wrong. [THE PRESIDENT.—But the Regulations will not come into force until the altered By-laws are confirmed by a second General Meeting, and submitted to and approved by the Privy Council.] But this is a motion, Sir, for adoption by this Meeting of Regulations which the By-law says shall after notice given be reported for confirmation, and if that is now done they will become resolutions of the Institute.

THE PRESIDENT.—I think Mr. Hall must see that if these Regulations are passed, they are passed in regard to certain By-laws, and it is impossible that they can come into force until the By-laws come into force. The matter is not worth quibbling about.

MR. WOODWARD [*A.*].—I should like, Sir, to make an observation on the Regulation under By-law 9, which I think might frustrate our object, which is to weaken the possibility of blackballing. The words are, "Such votes only to be counted as "are marked in such columns." I think many here will agree that in voting in such matters,

unless they know the particular candidate to be elected, they will abstain from voting altogether, and the result will be that blank spaces will be left: and as the voting is to be one in four, the absence of an affirmative mark, leaving the paper in blank, will lead to the possibility of again easily blackballing a member of the Institute. I therefore propose, Sir, that in the absence from the voting paper of a negative vote it should count as an affirmative. (Laughter.) That observation appears to have been treated with levity, but I think I am right in saying—at all events, Mr. Rickman will correct me if I am wrong—that that is the course of procedure which is adopted by the Surveyors' Institution. [Mr. VACHER. —This is not the Surveyors' Institution.] I have not another word to say, Sir; I have given my reasons for making the proposal, and I think that unless it is carried you will find blackballing as easy as before.

Mr. MATHEWS [*F.*].—I beg to second Mr. Woodward's amendment, Sir. I think there is no doubt that a great many papers will be sent in without any marks at all, while those who desire to blackball will take care to mark their papers, which will result in members who are put up having no protection against being blackballed without any fault of their own. I think Mr. Woodward's suggestion is a very good one.

Mr. RICKMAN [*A.*].—I have taken a great interest in this question, Sir. We have at the Surveyors' Institution adopted the plan of sending round papers before the balloting for members, and we have found that we have been very disappointed indeed. I take it, Sir, that the object of the By-law 9 Committee was not to avoid blackballing, but was to see that we might get a general consensus of opinion from the whole body of the Institute in cases where the ballot came forward. The object is not merely the same as we have at the Surveyors' Institution, which I would not have mentioned if it had not been thrown in my teeth. There it is utterly impossible to negative the introduction of any member into the Society if his name is once passed on to the papers, because the only votes that you can give are negative votes; all the names that have not a black mark against them or are not scored through on the ballot-papers are taken to be accepted, and the consequence is that, though we may have a large number of blackballs, it is impossible to get the members generally to consider fairly whether they ought to vote for or against the men who are brought forward. I sincerely trust that if there should be a necessity for balloting at all,—I trust that in a very large number of cases there will be no necessity for balloting under these By-laws and Regulations—but if there is, then I trust that the members generally will make enquiries as to the men who are brought forward, and that all those who know anything for them will vote in their favour, and only those who know something absolutely against them will vote against them; we shall then avoid the difficulty that we are under at the present time, namely, that only a certain number of people who live in London, and who know anything about the men who are brought forward, have an opportunity of balloting. If this Regulation is carried out I believe we shall have as effectual a ballot as if a ballot-box was taken round to every member's house throughout the country.

Mr. DICKSEE [*A.*].—I think, Sir, a way out of the difficulty would be to adopt the same procedure as in balloting for the Council and Committees; that is to say, a list of names is printed, and we strike out the names of those for whom we do not wish to vote. Naturally we should leave those standing against whom we do not know anything.

Mr. SPIERS [*F.*].—May I point out, Sir, what it is that we hope to effect by this By-law? In By-law 7 it will be seen that the names of the proposers will be printed and sent round to all the members, and it is hoped, therefore, that if any members are not known to the voters they will look at the names of the proposers and see if they cannot vote for their nominees.

Mr. HALL [*F.*].—I would suggest, Sir, a way of getting out of the difficulty by adding the words: "And the voter shall record his vote by "marking in one or other of the columns with a "cross, but shall not sign or in any way identify "the papers." That would suggest to the voters that they should vote for or against.

Mr. RIDGE [*F.*].—Sir, it has been pointed out to us that if you count all those papers that members send back to which they have added nothing at all as votes, that that in the nature of things swamps the vote; and unless it is possible to bring the influence of the ballot to bear upon cases where it is needed it is no use going through the farce at all. There is no doubt whatever that this, like many other things connected with this Institute, will require the serious attention of the members to do it properly, and to arrive at a proper result; and if men are to return their ballot-papers, I think it is their duty to look seriously into the matter, and see that they do it justice.

Mr. H. D. SEARLES-WOOD [*F.*].—May I suggest, Sir, that there should be only one name on each paper, and that persons should return only those papers that they wish to vote on; then you would have the voting made clear?

Mr. TODD [*F.*].—Would it be possible, Sir, for a member to state whether he knows the candidates or not, so that you could estimate the full value of his votes?

Mr. NEVILL [*F.*].—Sir, I do not see any difficulty at all. The object of the ballot is to get votes, and if people do not vote it seems ridiculous to force them to vote. If I do not know anything against a man, but do not know anything of him I simply pass him over; or if I know his proposers as being men worthy of credence I pass him over. We want to give people the chance of properly blackballing, and it is hoped that it will not be used improperly. If the profession and the Institute care so little for it, they have only themselves to thank if people are improperly black-

balled. In other Societies it happens that a good man may be put up and blackballed because his friends do not come forward and support him. But what is the result? He is put up again if he is a good man, and then his friends take the trouble to vote, and they write to their friends, and he is elected as a matter of course. And so in this case, if we are so apathetic as to allow blackballing to take place improperly, we must take the consequences of our apathy, and must exert ourselves on another occasion to rectify any error into which we may fall. I stand up, Sir, for the liberty of abstaining from voting and of blackballing if I choose.

Mr. Woodward then, with the consent of Mr. Mathews, withdrew the amendment, and the motion for the adoption of the several Regulations made by the Council under the altered By-laws 7 and 9 was approved and unanimously adopted.

III. Qualifications of Fellows: Section 3 of the Charter.

The PRESIDENT.—Now we come to the remaining business of the evening,—the qualifications of Fellows, section 3 of the Charter. The business is to receive and consider the following Report of the Council to the Special General Meeting, which no doubt you have all read; but, in order to place the matter before you formally, I will move the adoption of the Report. [Professor KERR [*F.*]. —Of the whole Report?] I move it *en bloc* in the first instance; but you will have observed that while the Council have been unanimous in regard to the first resolution as to the Regulation, they are not unanimous in regard to the second resolution as to the Declaration. Therefore, they have brought in the Report in that form, recommending unanimously the adoption of the Regulation, and leaving it to the Institute to decide whether the time has arrived for the proposed Declaration to be made. It will save the time of the Meeting, therefore, if I move in the first instance the reception of the whole Report; but the Meeting can consider the same in portions if it be so desired.

The Report, which was taken as read, is as follows:—

Gentlemen,—Referring to the resolution of the Royal Institute passed at the General Meeting, held on Monday the 11th July 1892, as follows:—"Resolved, *nem. con.*, that in view of the fact that young men only just passed the prescribed age of thirty are, under the existing system, qualified to be elected as Fellows without evidence that they have passed any constituted Examination evidencing their fitness; and whereas all candidates for the Associateship are now required to pass an Examination to prove their fitness, and which does in effect do so; and whereas the above-named outside candidates for Fellowship can, so long as the existing system continues, evade all Examinations: The Council be instructed to take the whole matter into consideration, and to report to the Institute as soon as possible, with proposals as to the best means of carrying out Section 3 of the Charter."

The Council have taken the whole matter into consideration, and have the honour to submit proposals as to the best means of carrying out Section 3 of the Charter.

The terms of that Section, so far as concerns the Declaration, are: "After the expiration of five years from the date of this our Charter [the limit of delay having expired on the 28th March 1892] the Royal Institute shall have power to declare that every person desiring to be admitted a Fellow shall be required to have passed such Examination or Examinations as may be directed by the Royal Institute. But in special cases the Council shall have power to dispense with such Examination or Examinations."

The Council have made and unanimously adopted a REGULATION which, in accordance with the terms of By-law 33, they beg leave to report for confirmation, as follows:—

> On and after the 1st November 1893, every person desiring to be admitted a Fellow shall in all cases submit for examination, by and to the satisfaction of the Council, evidence of his abilities as a practising Architect—such evidence to comprise working drawings, and, if possible, photographs of his executed works—accompanied by a declaration signed by him that the buildings of which he has submitted drawings and photographs have been designed by himself; and such further evidence, if any, as the Council may under the circumstances of the case require.

Respecting the DECLARATION referred to in Section 3 of the Charter, the Council are divided in opinion as to the advisability of making it. But should the General Body of the Royal Institute decide that the time has now arrived for making such a Declaration, the Council consider that it should assume the following form:—

> On and after the 1st January 1896, subject to the power reserved to the Council in Section 3 of the Charter, every person desiring to be admitted a Fellow shall be required to have passed such Examination or Examinations as may from time to time be directed by the Royal Institute.

Mr. HALL [*F.*].—Sir, with regard to the wording of this Regulation, though we all agree with the spirit of it, yet I venture to suggest that possibly this is the result of a great deal of debate in the Council, and that words may have got altered and changed, so that the signification is put in rather an obscure way perhaps. I do not know, for instance, what "for examination by and to the "satisfaction of the Council" means. Whether the Council are satisfied with their examination or not must be in their own hands. I think the Regulation would be shorter and would be rendered clearer if it were put in this way: "That on and "after the 1st of November 1893, every person "desiring to be admitted a Fellow shall in all "cases submit for examination by the Council as "evidence of his abilities as a practising architect "working drawings, and if practicable photo-"graphs of his executed works, and such further "evidence, if any, as the Council may require, "accompanied by a declaration signed by him, "that the buildings to which they relate have been "designed by himself." That is merely a matter of drafting, and it does not alter the principle in the remotest degree.

MR. RIDGE [*F.*].—Sir, I should like to second Mr. Hall's proposition. I think his wording is much better.

MR. VACHER [*A.*].—Sir, I should like to ask whether this Regulation is supposed to be a final Regulation? This Institute is bound to have gentlemen practising as architects who in the ordinary course of business are honest, straightforward, practical business men, and the Institute has for many years considered it right to call these gentlemen architects; but it is generally acknowledged that they practise very little architecture, and that you are giving these gentlemen, if admitted, a position which you will not give them in future. [THE PRESIDENT.—I will answer your question at once if you wish it.] No, I should like to say a few words. The Institute could do without Fellows, and should do without Fellows, who are not entirely architects. Is the Council likely to consider any means by which Section 2 of the Charter may be brought into action, by which a further class shall be chosen—an Honours class of Fellows,—so that the general practitioner who does but little architecture, and who sometimes does no architecture, could still be admitted as a Fellow, whereas those men who have attained a pre-eminent place as architects could be made Master Fellows?

MR. BROOKS [*F.*].—I must rise to order, Sir. Mr. Vacher is talking of the creation of a new class under Section 2 of the Charter.

THE PRESIDENT.—Mr. Vacher has asked the question whether this Regulation is to be considered final. No Regulation of the Council, even when confirmed by resolution of the Institute, is final. A By-law specially provides for the alteration or repeal of any Regulation, and the very object of making this Regulation is that it shall be tentative, and may be altered by the Institute, if necessary, afterwards.

MR. BRYDON [*F.*].—I think, Sir, the words "as a practising architect" might answer the query of Mr. Vacher. A gentleman will have to submit evidence of his ability as a "practising "architect."

MR. ARTHUR BAKER [*F.*].—It occurs to me, Sir, that this Regulation would shut out from the ranks of Fellowship many gentlemen who have passed an examination for Associateship, who after that select some particular science or art in connection with architecture, and give their whole attention to it—it might be decoration, or it might be surveying or arbitration. I think myself that it would be a great pity that those gentlemen who take up these branches, which are very useful branches, should be shut out—for this reason, that if they could not be Fellows of the Institute they would go and get a Fellowship elsewhere, and we should lose them from the profession. It seems to me, Sir, that our profession is not perfect unless we have amongst its members, and honoured members, those gentlemen who take up with other branches. I feel with those gentlemen who wish to raise the profession as an art; but still I think that those who do not look upon it so much as an art as a profession ought to be in the rank of Fellows, and I would suggest that this Regulation should be for those who wish to practise architecture as an art, but that those gentlemen who wish to practise rather the science and business connected with architecture, should have to pass an examination in that particular branch in which they intend to practise. These gentlemen having passed the general Examination for Associateship would be qualified to practise as architects generally if people liked to employ them, and therefore they would be free to practise as architects if they liked. It might be said that some members who came in as Fellows in the way I suggest would be taken to be art architects, and would be employed as such; but I do not think there is any fear of that. If my suggestion were adopted, those who wished to be considered as architects, as practising the art of architecture, would naturally submit drawings and be elected on account of their good art in architecture; while those who wished to get their living by surveying, arbitration, valuation, sanitation, decoration, or anything else, by passing an examination, and having attained their Fellowship by the passing of such examination, would get a standing in the profession and be recognised as specialists, and be of use to the profession. Supposing any member liked to take up iron and steel construction. Of course, I think some limit would have to be made; but, for instance, I say that if any one wanted to take up iron and steel construction, it would be better for the profession to have a Fellow of the Institute to go to than to have to go to an engineer.

MR. DICKSEE [*A.*].—What is the qualification of a Fellow, Sir? Is it not a gentleman who has been engaged for seven years in the practice of architecture? [MR. VACHER.—As an architect.] I suppose so—not as an engineer or a surveyor. If he cannot produce what is required of him he is not in any way qualified to be a Fellow; and it is most desirable that the position of Fellows should be a position of greater dignity than that of Associates. There ought to be a distinct difference between the two.

MR. BARRY [*F.*].—I think, Mr. President, you have by forethought, in an Address to which we all listened with great interest, really anticipated the answer to this question, and your Address was in thorough consonance with the words of the Regulation which is before us; that is to say, that a gentleman desiring to be a Fellow has to give evidence of his abilities as a *practising* architect. Now, you laid down, Sir, and I thought rightly, the rule that a practising architect, to deserve the name, does not mean only a man who can draw well, but that the characteristics of the practising architect to deserve the name embrace a great deal more than what may be called the art of architecture. The art of architecture we all admit of course, and we pay every kind of homage to those who possess it in a superlative degree; but if practising architects were absolutely confined to those who consider themselves, or are considered, the representatives specially of artistic architecture, the ranks of this Institute would be very small indeed, and the

profession would be very small indeed. Therefore I really think you are thoroughly well advised in putting down the words "a practising "architect," knowing that they embrace not only art, but a knowledge of construction, steel construction and all other construction,—scientific knowledge and so forth, which must all inevitably go to make an architect who is worthy of the name. I think you have done wisely in using the words "a practising architect," inasmuch as they are all-embracing. There is just one remark that I should like to make—that is, whether it might not be worth the consideration of the Council and of this Meeting whether some limit of time should not be mentioned. It says that a gentleman is to give evidence of his abilities as a practising architect; he may have been a practising architect for a week. [THE PRESIDENT.—No, he must have been practising seven years. These proposed qualifications are in addition to the existing qualifications for Fellowship. An applicant must, under the Charter, be 30 years of age, and must have been in practice seven successive years.] That quite answers my suggestion, Sir; but I thought it was intended to override and supersede what already exists, and therefore it seemed to me an omission. Your answer is quite satisfactory, and I venture to think that if this Regulation is conscientiously acted upon, as I have no doubt it will be by the Council, you will have sufficient guarantee that only suitable and proper people will be admitted to the Fellowship of this Institute. The only little difficulty that I cannot help feeling (having been a member of the Council for so many years) is the necessarily uncertain attendance which must take place; and yet this particular work does require the most conscientious and continuous devotion to the work that is before the Council.

MR. SETH SMITH [*F.*].—May I ask, Sir, whether the present Progressive Examinations practically constitute an entrance Examination to the Institute?

THE PRESIDENT.—The Examinations qualify for candidature as Associate, that is all. I presume, Gentlemen, I may put the amendment proposed by Mr. Hall and seconded by Mr. Ridge; and I may say that I agree with Mr. Ridge that the wording is, perhaps, better than as we drew it, and therefore I am quite willing to withdraw my motion in favour of Mr. Hall's amendment.

MR. BROOKS [*F.*].—As I seconded your motion, Sir, I may say that I entirely concur with you, and withdraw my seconding.

THE PRESIDENT.—Then I will put Mr. Hall's amendment as you heard him read it.

The amendment was carried unanimously.

THE PRESIDENT.—The next portion of the Council Report is the Declaration to be made under Section 3 of the Charter, which, as you are aware, is a subject upon which the Council have not been unanimous; but in order to place it formally before you, I will move its adoption.

MR. WOODWARD [*A.*].—Before this question is considered, Sir, may I ask whether certain memorials which were presented to the Institute in 1892 may be briefly referred to now, as well as any subsequent memorials that may have been presented? [THE PRESIDENT.—You do not wish the memorials read, I presume?] No, Sir, it is the spirit of the memorials that I should like to have stated.

The Memorials presented in 1892 were taken as read [see p. 270].

THE SECRETARY.—Sir, there is one memorial from Manchester, signed by the President, Mr. Edward Salomons, and by other members of the Manchester Society, approving both the Regulation and the Declaration. There is another memorial, approving the Regulation, from a certain number of Fellows and Associates in London; and among the number there is one, Mr. Owen Fleming [*A.*], who states that he disapproves of the Declaration. But the memorial in question says nothing about the Declaration.

MR. VACHER [*A.*].—Might I ask a question, Sir, that will help us to consider this Declaration? Might I ask what class of members the Council had in view when they framed this Declaration? By the first Regulation it cannot have anything to do with the outside Fellows, for they have to submit their works; and it seems that it cannot have anything to do with the gentlemen who have passed the Examination, for they have to submit their works too. Is it put against the gentlemen who are at present Associates, and who were elected before the Examinations came on? The thing wants explanation; and I think, Sir, it you give us an explanation of the class of members the Council had in view when framing this Declaration that it would help us to discuss the question.

PROFESSOR KERR [*F.*].—Your proposal, Sir, has not yet been seconded, and I am going to ask you if you will withdraw your motion? We ask you to reconsider it, and we trust to your generosity to accede to our request.

THE PRESIDENT.—I stated that I only moved it formally in order to elicit an expression of the feeling of the Meeting.

MR. ARTHUR BAKER.—I have much pleasure, Sir, in seconding it.

PROFESSOR KERR [*F.*].—Then I rise, Sir, first on a point of order. I have an objection to this Declaration altogether, and I believe a good many gentlemen have. (Hear, hear.) Therefore we must be excused if we exercise a little of what is being exercised at the present moment, within reasonable limits. I suggest to you, Sir, on the point of order that this Declaration contains nothing, absolutely nothing, that has not been passed in the Regulation. I submit, Sir, that you cannot move it; that it is already passed.

MR. BARRY [*F.*].—I think, Sir, in considering this matter I may trespass upon the Meeting for a few minutes, because it was on my motion originally that in July last year the Council were asked to take this matter into consideration, and the resolution which was then passed *nem. con.* (omitting all the preamble and the reason) was that "The Council be instructed to take the whole

"matter into consideration, and report to the "Institute as soon as possible." We have come to the position of "as soon as possible," and the Council have reported, and, in place of suggesting an absolute examination for Fellowship, have proposed, and it has been accepted by this Meeting, to pass the Regulation which we have all been discussing; and I should like to state that I am perfectly satisfied, so far as I am concerned, with that Regulation. I think, Sir, that that Regulation, if it is conscientiously acted upon, as I am quite sure it will be, by the Council, will be in effect an examination. The Regulation is to take effect in November of this year, and the Declaration suggested by the Council is not to take effect until 1896, nearly three years hence. I presume the idea was that some time should pass during which the Regulation would be in force and before the Declaration should come in force; and I am very glad to welcome that as a very useful thing, because we should have an opportunity between 1893 and 1896 of seeing how the Regulation works. If it should work, as I believe it is the wish of all that it should, possibly no further action need be taken under Section 3 of the Charter. If it does not work, then I will not venture to say that I shall make any proposition; but I hope that some member of the Institute, who takes as much interest in its welfare as I do, will move something that will be more effectual. Meanwhile, so far as I am concerned, I have no opposition whatever to offer to the withdrawal of this declaration.

MR. BROOKS [*F.*].—I sincerely hope and trust, Sir, that the Meeting will accept Mr. Barry's suggestion—that the Declaration be withdrawn. If not, it will be my duty by-and-by to propose an amendment.

MR. MAURICE B. ADAMS [*F.*].—I think, Sir, I might venture to differ from Mr. Barry, inasmuch as he proposed that this Declaration which has been printed and circulated should be quietly withdrawn. I think we ought to register our opinion that we are not instituting by the previous Regulation which we have been discussing anything approaching the recognised character of an examination for Fellowship. We wish to give a direct negative to this Declaration which has been presented in these words, and I think we ought to have an opportunity of doing so. (Hear, hear.) This proposal of Mr. Barry's, much as I appreciate his intention, does not quite carry out the view that I should wish to insist upon—that is, that we should for once and for all declare that we are not attempting to examine persons in architecture. We can examine them in science, and we can examine them in many things which surveyors and persons who are thoroughly entitled to be qualified as Associates here may practise in, but not in architecture as a fine art. And, without wishing to excite any difference of opinion other than that which is perfectly right, I do hope that we may now register a direct negative to this Declaration which has been proposed from the chair.

MR. SLATER [*F.*].—Sir, might I suggest what I think will come a great deal better? Every one will see that the Council were not unanimous, and that they have left it to the general Body to say whether any Declaration should be made at all now. It seems to me that instead of a direct negative, by far the best course would be for some one to propose that the time has not arrived for making any Declaration, and that will meet the whole question.

MR. L. STOKES [*F.*].—Sir, I have an amendment that I should like to propose, which I think will meet the suggestion that Mr. Adams has put forth. It seems to me that if you have an Examination of Associates it may be right, but we cannot possibly pretend to establish an Examination for Fellows. I therefore propose an amendment to the Declaration to this effect: "That the "foregoing Resolution referring to the Qualifica- "tion of Fellows be declared to meet and cover "all such Examination or Examinations as is or "are permissible under Section 3 of the Charter."

MR. JOHN BELCHER [*F.*].—I beg, Sir, to second Mr. Stokes's motion.

MR. RIDGE [*F.*].—You must remember the position of the Council—that it was referred to us by the general Body to say what form this Declaration was to take, and that was carried *nem. con.*; therefore I do not think that the Council ought to be penalised, or rather that this Meeting ought to be penalised, by not being allowed to withdraw (which seems to be the suggestion of Mr. Adams) this Declaration. I think we all feel that the Declaration is one that it is extremely undesirable to carry at the present time, and I am not sure that it would be wise ever to carry it; it could never be carried satisfactorily unless it was carried practically unanimously by this Institute. Unanimity on the subject has not yet reached the Council, and certainly does not exist here. There is, however, one point by which I believe this matter has been very seriously complicated, and a good deal misunderstood. I served on the Special Charter Committee when this section was drawn up, and the idea I believe that was present to the members of that Committee was this:—The Institute has established an Examination, and, to give that Examination a recognition, we will call now upon Associates to pass it, and the time may come, when the thing has been in existence sufficiently long, for us to call also on Fellows to have passed it. That was the idea that was present in the minds of the Committee then. [MR. BROOKS.—Some of the Committee only. I was on the Committee, and I did not think so.] The idea of the establishment of a separate Examination for Fellows, apart from the Institute Examination, certainly did not enter into the official mind of that Committee, and I do not know that it was in the mind of any single member of it. I at that time regarded, and I regard now, the suggestion of the formation of a separate Examination for Fellows as simply grotesque—a thing quite impossible to carry out, and a thing which I have not understood to be in the least degree the suggestion that was offered by the Meeting which passed the resolution out of which this action has come.

It seems to me that the matter has been complicated in some way or other by the introduction of a theory, an idea, that we wanted to examine Fellows, which has really no foundation in fact so far as I know; and I think that, if this Institute can only disabuse its mind of the idea that there has been a proposition or suggestion to examine Fellows, we shall understand one another better, and that a good deal of the friction that has taken place in times past will be avoided in future.

Mr. J. J. STEVENSON [*F.*].—Sir, it seems to me that those members of the Council who support this Declaration have misapprehended what examinations are good for, and have misapprehended also what makes an architect and what makes architecture. If there is one thing that we think makes an architect, it is that there shall be some originality in him; and if there is one thing that is impossible to examine into, *ex hypothesi*—because people can only examine into what is known before—it is his originality, which is the main thing in the qualifications of an architect.

The PRESIDENT.—I put this matter before you in the first instance, Gentlemen, as you may remember, apologetically. If it had been a unanimous recommendation of the Council, I should have put it in a very different form. It was not so, and I gather from the sense of the Meeting that the members are of opinion that it is not desirable to pass this Declaration. (Cheers.) Remember that if this Declaration were passed in the form in which it is drawn it would be done for good and all—for ever; it is different from a Regulation which you can alter. Therefore, in view of the expressions of opinion that have been given, I beg leave to withdraw the motion.

Mr. BROOKS [*F.*]—Then, Sir, there will be no occasion for me to propose the amendment which I intended to move: "That the Declaration "is not desirable, and that it be postponed *sine die*."

Mr. BARRY [*F.*].—Do not say *sine die*.

Mr. STOKES [*F.*].—Sir, am I obliged to withdraw my amendment because you withdraw your original motion?

The PRESIDENT.—I do not say that you are obliged to do so, but there is no doubt that, with the courtesy which generally characterises your conduct, you will do so.

MINUTES. XI.

Special General Meeting.

At a Special General Meeting held on Monday, 27th inst., at 8 p.m., Mr. Henry Currey, *Vice-President*, afterwards Mr. J. Macvicar Anderson, *President*, in the Chair, with 55 Fellows (including 17 members of the Council) and 53 Associates (including 2 members of the Council), the Minutes of the Special General Meeting and the Business General Meeting held on the 13th inst. [see p. 243 *ante*] were taken as read, and signed as correct.

The decease of J. G. Elgood, *Fellow*, of Manchester, and of George Snell, *Hon. Corr. Member*, of Boston, U.S.A., was announced.

The following member, attending for the first time since his election, was formally admitted, namely, Joseph Pilling, *Fellow* (Bolton).

I. Nomination of President for 1893–94.

A recommendation of the Council that Mr. J. Macvicar Anderson, *President*, be requested to allow himself to be nominated as President for the ensuing year of office, and that consequently By-law No. 26 be suspended, having been received, its adoption was moved by the Chairman (Mr. Currey), and seconded by Mr. James Brooks, *Vice-President*; and remarks thereon having been made by Mr. Lacy W. Ridge [*F.*], Professor Kerr [*F.*], Mr. B. J. Dicksee [*A.*], Mr. Ralph Nevill [*F.*], Mr. Charles Barry [*F.*], Mr. Kidner [*F.*], Mr. Wm. Woodward [*A.*], the Hon. Secretary, and the Chairman, it was unanimously

> Resolved, that Mr. J. Macvicar Anderson, *President*, be requested to allow himself to be nominated as President for the ensuing year of office, and that consequently By-law 26 be suspended for one year.

The President having soon afterwards entered the room, and the Chairman having informed him of the passing of the Resolution, the President acknowledged the compliment, and took the chair, vacated for him by Mr. Currey.

II. Nomination and Election of Candidates for Membership.

Prior to beginning this part of the business of the Special General Meeting, the President made a statement respecting the March Progressive Examinations, and announced the names of Probationers who had passed the Intermediate Examination [see p. 253 *ante*].

Recommendations of the Council to alter By-laws Nos. 7, 8, and 9, in pursuance of a Resolution of the Business General Meeting held 13th June 1892, and in accordance with the instructions of a Report adopted by that Meeting [see Vol. VIII. pp. 337 and 349], having been received, were considered *seriatim*, and it was

> Resolved, that the proposed alteration of By-law No. 7 is satisfactory to the Meeting.

It was further

> Resolved, that the proposed alteration of By-law No. 8 be approved.

It was further

> Resolved, that the proposed alteration of By-law No. 9 be approved, subject to the insertion of the words "not less than" between the word "appoint" and the words "three Scrutineers."

In the discussion of the hereinbefore-mentioned recommendations, Mr. E. T. Hall [*F.*], Mr. Leonard Stokes [*F.*], Mr. B. J. Dicksee [*A.*], Mr. Beresford Pite [*A.*], Mr. Aston Webb [*F.*], Mr. John Slater [*F.*], Mr. Wm. Woodward [*A.*], Professor Kerr [*F.*], Mr. Hansard [*F.*], Mr. T. M. Rickman [*F.*], Mr. Charles Barry [*F.*], Mr. Ralph Nevill [*F.*], Mr. J. J. Stevenson [*F.*], Mr. S. Vacher [*A.*], Mr. J. D. Mathews [*F.*], Mr. James Brooks [*F.*], Mr. H. G. Turner [*A.*], and the President, took part.

On the motion of Mr. Lacy W. Ridge [*F.*], seconded by Mr. Charles Barry [*F.*], the By-laws as altered were submitted to the consideration of the Fellows present, and it was unanimously

Resolved, that the alterations to By-laws 7, 8, and 9, as recommended by the Council, and amended and approved by the Special General Meeting, be adopted, as follows: — *By-law No.* 7 (*Nominations*). The nomination of every applicant for admission to any class of membership must be forwarded to the Secretary for submission to the Council, who shall inquire into the fitness and qualifications of the applicant so nominated; and, in the case of a nomination of any person residing in a district or province where there is an Allied Society as hereinafter defined, but whose nomination has not been forwarded through such Society, the Secretary shall send notice thereof to such Allied Society, and invite observations thereon. The name and address of every applicant for candidature shall be suspended in the Meeting-room and published in the Journal of the Royal Institute, with a notification that any objection or other communication must be sent to the Secretary for submission to the Council within a period from the date of such publication to be fixed by Regulation. If, after due investigation of the claim of such applicant and of any objection thereto, the Council approve him, and find him to be eligible and qualified according to the Charter and By-laws, he shall be admitted to candidature, and his nomination shall be signed by the Chairman of the Council Meeting at which such nomination is approved. The nomination shall be read at a General Meeting, and forthwith suspended in the Meeting-room of the Royal Institute until the day of election. The name and address of the candidate, with the names of his proposers, shall be printed in full in the circular convening the Meeting at which such election is to take place. Any communication respecting applicants for admission to candidature, or respecting candidates for election, received by the Council, shall be treated as confidential. *By-law* 8 (*Elections*). The election of candidates shall (except in the case in which special provision is made in By-law 9) take place at Business Meetings only, and in no case until due notice thereof has been given in the circular convening the Meeting. *By-law* 9 (*Elections*). The voting at elections shall be by show of hands, and a candidate shall be elected if supported by a majority of those present having a right to vote and voting at such election. Provided always that if a requisition in writing, signed by seven or more Fellows and Associates (the majority of whom shall be Fellows), be delivered to the Secretary not less than fourteen clear days before the Meeting at which such election is to take place, that the votes for the whole of the candidates, or for one or more specified candidates, be taken by voting papers, then the election or elections of such candidates shall be so conducted. Voting papers shall then be issued to all Fellows and Associates resident in the United Kingdom, and shall be returned to the Secretary so that the same shall be received by him at the latest on the Thursday evening before such Business Meeting as aforesaid, folded and enclosed in a sealed envelope, bearing on the outside the signature and Royal Institute serial number of the member voting. The Council shall appoint not less than three Scrutineers, the majority of whom shall be Fellows, and of whom two shall form a quorum, and such Scrutineers shall be summoned by the Secretary to meet at the premises of the Royal Institute, and at such Meeting he shall deliver to them the said envelopes, which shall be opened and the voting papers taken therefrom without being unfolded, the Scrutineers adopting such further measures as they may deem fit to prevent the identification of the voters. The Scrutineers shall then examine the voting papers, count the votes, and report to the Royal Institute at any General Meeting the names of the candidates elected — negative votes in the proportion of one negative vote to four affirmative votes excluding from election. The decision of the Scrutineers, or a majority of them, shall in all matters relating to an election be final.

Certain Regulations, made by the Council, for carrying into effect By-law No. 7, as hereinbefore adopted, having been reported for confirmation under the terms of By-law 33, the same were considered, and it was

Resolved, *that* (1) Any objection to an applicant for candidature whose name and address are published in the Journal of the Royal Institute, or other communication respecting him, must be sent to the Secretary for submission to the Council within ten clear days from the date of issue of that number of the Journal. *That* (2) No nomination of any applicant for candidature shall be approved by the Council until after the lapse of at least fourteen days from the date of the publication of his name and address in the Journal of the Royal Institute. *That* (3) The day of election shall be the first Business Meeting held after the expiration of twenty-one days from the General Meeting at which the nomination was read.

A Regulation, made by the Council, for carrying into effect By-law No. 9, as hereinbefore adopted, having been reported for confirmation under the terms of By-law 33, the same was considered, and it was

Resolved, *that* the voting papers shall state the name and address of every candidate, with the names of his respective proposers, and be divided into columns for affirmative and negative votes, such votes only to be counted as are marked in such columns.

III. Qualifications of Fellows: Section 3 of the Charter.

A Report of the Council, pursuant to the Resolution passed at the General Meeting held 11th July 1892 [see Vol. VIII. p. 390], having been submitted, was considered; and a Regulation contained therein, made by the Council, having been reported for confirmation under the terms of By-

law 33, the same was amended, and it was unanimously

> Resolved, *that* on and after the 1st November 1893, every person desiring to be admitted a Fellow shall in all cases submit for examination by the Council, as evidence of his abilities as a practising architect, working drawings, and, if practicable, photographs of his executed works, with such further evidence, if any, as the Council may require. Such drawings and photographs shall be accompanied by a declaration, signed by the applicant, that the buildings to which they relate have been designed by himself.

In the discussion of the Report, Mr. James Brooks [*F.*], Mr. J. A. G. Knight [*A.*], Mr. E. T. Hall [*F.*], Mr. Lacy W. Ridge [*F.*], Mr. Charles Barry [*F.*], Mr. S. Vacher [*A.*], Mr. J. M. Brydon [*F.*], Mr. Arthur Baker [*F.*], Mr. B. J. Dicksee [*A.*], Mr. Seth Smith [*F.*], and the President took part.

The business having been thus brought to a termination, the Meeting separated at 10.15 p.m.

SECTION 3 OF THE CHARTER.

Memorials to the Council, presented in 1892.

[*From Birmingham.*]

In connection with the consideration of the Report of the Committee in reference to By-law 9 on the system of balloting for the admittance of Fellows to the Royal Institute of British Architects, it appears to us that the present is a favourable opportunity for discussing the advisability of the Council acting under the powers conferred on them under Section 3 of the Charter, of imposing some test of qualification on the candidates for Fellowship. It appears to us that, save under exceptional circumstances, the ranks of the Fellows should be recruited only from those of the Associates, and that the limit of age in such exceptional cases should be raised very considerably above thirty years.

Wm. Hale (*F.*), President of the Birmingham Association; Herbert R. Lloyd (*A.*), Hon. Secretary; W. H. Bidlake (*A.*), Alfred Reading (*A.*), Victor Scruton (*A.*), William Henman (*A.*), A. B. Phipson (*F.*), G. T. Bassett (*A.*), F. B. Osborn (*F.*), Joseph Lavender (*A.*), Jno. G. Dunn (*A.*), John P. Osborne (*A.*), J. A. Chatwin (*F.*), Oliver Essex (*A.*), John Coulson Nicol (*A.*), Fred. G. Hughes (*A.*).

[*From Bristol.*]

We, the undersigned Fellows and Associates of the Royal Institute of British Architects, beg respectfully to memorialise the Council with reference to the Election of Fellows. We consider that it is desirable that Fellows should be elected from the class of Associates only, except in special cases at the discretion of the Council; and we would suggest that the Council take, at an early opportunity, such steps as may remove the anomaly of the present system.

Henry Crisp (*F.*), President of the Bristol Society; W. Edward Jones (*F.*), Hon. Secretary; Wm. L. Bernard (*F.*); W. H. Clark (*F.*); Edward W. Barnes (*F.*); Walter S. Paul (*A.*); H. C. M. Hirst (*A.*); J. H. La Trobe (*A.*) Joseph Foster Wood (*A.*).

[*From Leeds and Bradford.*]

We, the undersigned Fellows and Associates of the Royal Institute of British Architects, desire respectfully to call the Council's attention to the existing anomaly in the election of Fellows of the Institute, by which young architects of the age of thirty years who have been engaged in practice for the stipulated period of seven years can present themselves for election as Fellows, and thus evade the examination which is now obligatory upon all candidates for the Associateship. To maintain the high standard of qualification appertaining to the degree of Fellow, we would ask the Council to put into operation the powers they possess under Section 3 of the new Charter, and to determine in future that all Fellows shall be elected from the ranks of the Associates, excepting in such special cases where they shall decide the candidate is eligible for election by reason of distinguished attainments and professional ability.

George Bertram Bulmer (*F.*), President of the Leeds and Yorkshire Society; W. Carby Hall (*A.*), Hon. Secretary; William Bakewell (*F.*); John Wayland Benwell (*A.*); Francis William Bedford (*A.*); Edward Birchall (*F.*); J. Wreghitt Connon (*F.*); Charles Roberts Chorley (*F.*); Herbert Hodgson (*A.*); Charles B. Howdill (*A.*); W. John Mettam (*A.*); Fredk. Musto (*A.*); Jas. Ledingham (*F.*); Henry Perkin (*F.*); Stephen Ernest Smith (*F.*); William H. Thorp (*F.*); John Tweedale (*F.*); W. Clement Williams (*F.*); W. Swinden Barber (*F.*); Lister Coates (*A.*); Walter Hanstock (*A.*); F. W. Ridgway (*F.*).

[*From Leicester.*]

We, the undersigned members of the Leicester and Leicestershire Society of Architects, being Fellows and Associates of the Royal Institute of British Architects, desire respectfully to memorialise the Council with respect to the election of Fellows. The establishment of a qualifying examination for Fellows is provided for by Section 3 of the Charter. All Associates must now pass the qualifying examination. It is submitted that young men by holding aloof for a few years may evade the examination and become candidates for Fellowship. We respectfully submit that the earliest opportunity should be taken to make it imperative for all candidates for Fellowship, except in special cases, to be either Associates or to have passed a qualifying examination.

A. H. Paget (*A.*), President of the Leicester Society; Stockdale Harrison (*F.*), Joseph Goddard (*F.*), Fras. Redfern (*F.*), J. Tait

(*F.*), J. B. Everard (*F.*), John Goodacre (*F.*), Albert E. Sawday (*F.*), R. J. Goodacre (*F.*), Howard H. Thomson (*A.*), S. Perkins Pick (*A.*), H. L. Goddard, B.A. Oxon. (*A.*), Arthur H. Hind (*A.*).

[*From Liverpool.*]

We, the undersigned Fellows and Associates of the Royal Institute of British Architects, being members of the Liverpool Architectural Society, are of opinion that the time has arrived for the Council of the Royal Institute of British Architects to take into their serious consideration the present qualification for the admission of Fellows. It is therefore in our opinion extremely desirable that the powers conferred by section 3 of the Charter be exercised, and that, from some specified date, every candidate for Fellowship shall be an Associate, or shall have passed an examination qualifying him for Associateship, except in such special cases as shall justify the Council in dispensing with such examination.

T. Harnett Harrisson (*F.*), President of the Liverpool Society; Charles E. Deacon; T. Mellard Reade; G. E. Grayson; Chas. Aldridge; John Clarke; Huon A. Matear; Francis U. Holme; Alfred Culshaw; Thos. Cook; Henry Hartley; Chas. A. Hindle; William Parslow.

[*From Manchester.*]

We, the undersigned Fellows and Associates of the Royal Institute of British Architects, beg respectfully to suggest to the Council of the Institute that the time has now arrived when the provisions of Section 3 of the Charter respecting the admissions to Fellowship should be put in operation (the five years therein named from the date of the Charter having expired). We consider that in future every person desiring to be admitted a Fellow should be required to have passed such an examination as may be directed by the Institute; and that, excepting in special cases, which would of necessity be in the discretion of the Council, no admission to Fellowship should be allowed without such a course had been carried out.

Jno. Holden, William Charles Tuke, Wm. A. Royle, Robert I. Bennett, Henry Bridgford, Wm. Horton, J. Murgatroyd, Thos. Worthington, John G. Elgood, John Ely, James Stevens, W. H. Littlewood, Walter Higginbottom, John Littlewood, Henry Lord, Charles Hy. Heathcote, J. W. Beaumont, Edward Potts, Alfred Darbyshire, F. H. Oldham, *Fellows*; Paul Ogden, Percy Scott Worthington, Philip E. Barker, Peter Hesketh, E. Percy Hinde, David Bird, John Dent Harker, William E. Potts, Thos. Chadwick, Hy. E. Stelfox, *Associates.*

[*From the Metropolis.*]

We, the undersigned, considering that it is now desirable, in compliance with the authority contained in the Charter and By-laws, that, except in particular cases under special circumstances, a date should be fixed after which only Associates of the Institute should be eligible for election as Fellows, request that the Council do take such steps as may be necessary to bring the subject before the general body of the Institute, in order to ascertain the views of the members thereon.

Charles Bell, Thomas Archer, Henry Tanner, Jno. Thos. Wimperis, James Tolley, W. Seckham Witherington, Delissa Joseph, Arthur Greene, G. T. Hine, John Taylor, Robert Sawyer, *Fellows*; Caleb Stanger, Chas. Mason, Harold A. Woodington, Francis Hooper, Edgar A. Hawkins, Percy C. Gibbs, Nathaniel J. Stanger, John O. Abbott, Ernest A. E. Woodrow, Harold R. Luck, *Associates.*

We, the undersigned members, being of opinion that the rank of "Fellow" should not, as at present, be open to architects just over the prescribed age of thirty years, who can evade the examination for Associateship, and yet present themselves for admittance to the class of Fellows, thereby lessening the dignity appertaining to the title and removing the stimulus to young men to qualify for the class of Associate, venture to urge upon you that the title of Fellow would be enhanced if no architect is admitted to that class unless he is already an Associate, or has passed the Associateship Examination, except in such cases as the Council shall, after due consideration, be of opinion that the applicant is eligible for the rank of Fellow by special circumstances of age or professional ability.

Cole A. Adams (*F.*), F. H. Tulloch (*A.*), H. D. Searles-Wood (*F.*), Wm. H. Atkin-Berry (*A.*), G. Richards Julian (*A.*), J. Douglass Mathews (*F.*), John S. Quilter (*F.*), Arthur E. Northcote (*A.*), Richard M. Roe (*F.*), Ed. W. Mountford (*F.*), John Hebb (*F.*), E. Guy Dawber (*A.*), H. R. Brakspear (*A.*), Robert F. Hodges (*A.*), Alfd. Millwood (*A.*), Francis Hooper (*A.*), H. O. Cresswell (*A.*), A. O. Collard (*A.*), William H. Arber (*A.*), Frank Baggallay (*F.*), Walter Millard (*A.*), Thos. Edward Pryce (*A.*), Edmd. Walter Wimperis (*A.*), Alfred H. Clark (*A.*), Arthur R. Mayston (*A.*), S. Flint Clarkson (*F.*), Hubert S. East (*A.*), J. C. Stransom (*A.*), E. H. Sim (*A.*), W. Arthur Webb (*A.*), Geo. Harvey (*A.*), Henry A. Saul (*A.*), T. Gardhouse Charlton (*A.*), Charles A. Callon (*A.*), J. Reginald Best (*A.*)

We, the undersigned Fellows and Associates of the Royal Institute of British Architects, beg leave to direct attention to the fact that under the existing system any young architect just over the age of thirty years is eligible for admission as a candidate for Fellowship of the Institute, notwithstanding that he may not have passed any qualifying examination such as is required for Associates. It is therefore, in our opinion, extremely desirable for the general welfare of the Institute, and for the prevention of discord in its ranks, that the powers conferred by Section 3 of the Charter be exercised, and that in accordance

therewith "every person desiring to be admitted "a Fellow shall be required to have passed such "Examination or Examinations as may be directed "by the Royal Institute. But in special cases "the Council shall have power to dispense with "such Examination or Examinations."

Zeph. King (*F.*), Austin Heyes (*A.*), Wm. Woodward (*A.*), Thos. E. Mundy (*A.*), Chas. Oury King (*A.*).

Memorials to the President and Council subsequently received.

[*From Manchester.*]

We, the undersigned Fellows and Associates of the Royal Institute of British Architects, being unable to attend the General Meeting to be held at Conduit Street on the 27th March (instant), and being desirous of giving expression to our opinion in respect of the matters to be brought before the Meeting, more particularly those in connection with the "Nomination and Election "of Candidates for Membership," and the "Quali- "fication of Fellows," beg respectfully to state as follows:—

That we agree with and desire to support the proposition to alter the By-laws Nos. 7, 8, and 9, so as to read as proposed to be altered by the Council, and as given in the Supplement to the *Journal of Proceedings* issued 16th March (instant), a copy of which is attached.

We also agree with and desire to support the Regulation of the Council for carrying out the By-law No. 7 as given on the 3rd page of the above-named Supplement (attached).

As to the Qualification of Fellows and the Declaration referred to in Section 3 of the Charter (bearing in mind that the question has been fully discussed and considered by the Council, and recognising the difficulties of dealing with it, and being satisfied that the arrangement proposed by the Council will fairly meet the requirements of the case), we desire to support the Regulation adopted by the Council and to be reported for confirmation at the Meeting of the 27th instant, and as given on the 4th page of the above-named Supplement (attached), and also the Declaration given on the same page.

Signed the 24th day of March, 1893.

Edward Salomons [*F.*]; Chas. Hy. Heathcote [*F.*]; Thomas Worthington [*F.*]; George Tunstal Redmayne [*F.*]; John Holden [*F.*]; Wm. Horton [*F.*]; Charles Clegg [*F.*]; Paul Ogden [*F.*]; A. H. Davies-Colley [*A.*]; Percy S. Worthington [*A.*]; J. Murgatroyd [*F.*]; John Ely [*F.*]; J. W. Beaumont [*F.*].

[*From the Metropolis.*]

Gentlemen,—We, the undersigned Fellows and Associates of the Royal Institute of British Architects, have read with pleasure the "Regula- "tion" made and unanimously adopted by the Council (as set out on page 4 of the Supplement to *The Journal* last issued), with reference to the Qualification of Fellows, and we cordially support the proposal of the Council, which will, we think, further the best interests of the Institute, and which, in our opinion, proves the desire of the Council to adopt an open policy in accordance with the spirit of the times, and to leave its hands and those of its successors free to deal with special circumstances as they arise.

Arthur Green [*F.*]; Charles Bell [*F.*]; Wm. Woodward [*A.*]; Robert Sawyer [*F.*]; Delissa Joseph [*F.*]; W. Seckham Witherington [*F.*]; Edgar A. Hawkins [*A.*]; Austin Heyes [*A.*]; Francis Hooper [*A.*]; Percy C. Gibbs [*A.*]; Zeph. King [*F.*]; Henry Tanner [*F.*]; F. H. Tulloch [*A.*]; Alf. Millwood [*A.*]; Edward A. Jollye [*A.*]; Owen Fleming [*A.*]; T. Gardhouse Charlton [*A.*]; Fredk. W. Tarring [*F.*]; George H. Bibby [*F.*]; Arthur E. Northcote [*A.*]; Ernest A. E. Woodrow [*A.*]; H. R. Brakspear [*A.*]; Henry A. Saul [*A.*].

ADDRESSES WANTED.

Audsley: George Ashdown [*F.*].
Ballard: William Washington [*A.*].
Barker: John Theodore.
Buxton: William J. [*A.*]
Clare: Edwin [*F.*].
Ellison: Thomas Bradford [*A.*].
Knowles: George [*F.*].
Hooker: Walter [*A.*].
Hudson: Walter Merceron [*A.*].
Martin: William James.
Maylard: Charles G. [*A.*].
Mayo: Ernest Alfred [*A.*].
Peter: John [*A.*].
Roberts: Thomas Price [*A.*].
Fiorelli: Cavaliere Giuseppe [*Hon. Corr. M.*].

News from Cairo.—The condition of the Ghizeh museum has been occupying the attention of the Government and the public, and a commission was appointed to examine the building. Its report shows that the condition is even more dangerous than it was known to be. With the masses of timber in the masonry of the walls, the numerous flimsy partitions and wooden floorings, and the spacious exterior verandahs, a fire would effect the complete destruction of the building in a few hours. The Government has rejected a proposal for removing the museum into a building to be constructed for the purpose on a more accessible site on the score of expense, estimated at £130,000, and prefers to face a probable expenditure of £90,000 for alterations to render the present building fireproof, although the result is not expected to be satisfactory. The Caisse de la Dette is disposed to pay the cost from its reserve fund. This invaluable collection, representing the art and history of ancient Egypt, which has been gathered with enormous pains, is increasing yearly, and its disposal interests the entire scientific world. The Egyptian Ministry, however, with all good intentions, does not appreciate its value and importance, and the Premier, who is all powerful, considers it mere waste to spend money on such objects whilst it is needed for the reduction of taxation, instruction, &c.—*The Times, 27th inst.*

No. 9, Conduit Street, Hanover Square, London, W.

THE LONDON COUNCIL APPELLATE TRIBUNAL. Some two years ago the Council of the Institute, in their annual report, referred very briefly to the constitution of an Appellate Tribunal under the London Council (General Powers) Act 1890, and a little later a short description was given in *The R.I.B.A. Journal* [27th Aug. 1891] of the Tribunal and the work it had then already accomplished. Since that time it has continued its work silently and without friction. Indeed, the success which has attended the operation of this Tribunal of Appeal should encourage the Legislature to authorise the establishment of other like Tribunals for the settlement of technical questions.

The Appellate Tribunal hears (1), under Section 28 of the Act, appeals against the certificate of the Superintending Architect as to the general line of frontages; and (2), under Section 36, appeals against the consent or refusal of the London Council to extend the limit prescribed in the height of buildings. It also has to determine any question which may arise as to the meaning of the word "block" of buildings mentioned more than once in that thirty-sixth section. In the first case, the Superintending Architect having, within fourteen days after certifying, caused a notice of his certificate to be served on the several parties concerned, any person deeming himself aggrieved by such certificate may, within another fourteen days, appeal to the Tribunal. In the second case, any owner or lessee, to whom consent may have been refused to erect a building of a greater height than that prescribed under the terms of the Act, may also appeal to the Tribunal; and the owner or lessee of any building, on land within one hundred yards of the site, who may deem himself aggrieved by the grant of any consent has a like right of appeal to it. The Tribunal has the power to confirm, reverse, or vary any such certificate of the Superintending Architect, or such refusal, or grant; and the costs of any of the parties to an appeal are in its discretion, and are to be borne and paid as the Tribunal directs.

The Appellate Tribunal consists of three persons: one appointed by the London County Council; one by the Council of the Royal Institute of British Architects; and one by the Council of the Surveyors' Institution. The two last-named must not be members or officers of the London Council. In 1891 the following were appointed for the period of a year:—Mr. John Hutton, then Chairman of the L.C.C. Building Act Committee; Mr. Arthur Cates, then Vice-President of the Institute; and Mr. R. C. Driver, then President of the Surveyors' Institution. These appointments expired in 1892, and since then the Tribunal has consisted of Dr. Longstaff, Chairman of the L.C.C. Building Act Committee, Mr. Arthur Cates, and Mr. C. J. Shoppee, President of the Surveyors' Institution. In both instances Mr. Cates was appointed Chairman of the Tribunal.

From its foundation to the present time the Tribunal has heard and determined fifteen appeals. In most of the cases, the parties have been represented by

eminent counsel; and in all, the localities have been carefully inspected by the Tribunal before each hearing. In the results, nine of the Superintending Architects' certificates appealed against have been confirmed, and six have been varied; in some cases in but slight detail, in others in important particulars of serious consequence to the appellants.

The very important nature of these appeals, both to the public interest and to that of the appellants, demands from the Tribunal much valuable time of its three members, who have to carefully consider localities on the spot, as well as the arguments of counsel representing both sides. An appeal sometimes lasts a whole day, and the visit to a locality another half-day. Yet the London Council (General Powers) Act 1890 does not provide for any remuneration to the members who constitute the Tribunal, and who have freely given and still give their services, which include, not valuable time alone, but technical and professional experience only to be acquired after years of practice in the settlement of matters affecting the interests of individuals and of the public generally, within the metropolitan area.

REVIEWS. VIII.

(19.)

THE DESIRE OF BEAUTY.

The Desire of Beauty, being indications for Æsthetic Culture. By Theodore Child. 8o. *Lond.* 1892. [*Osgood, McIlvaine & Co.*, 45, *Albemarle Street, W.*]

In this work the writer analyses the Desire of Beauty, which we all possess in greater or less degree. It is in parts unnecessarily verbose and tautological, but the reader will rise from it with new ideas on the reconciliation of the everlasting antinomies of Realism and Idealism. Mr. Child pleads, not unsuccessfully, for the due regard which true artists should feel for cultivating both these tendencies in right proportions. The opening chapter on the "Solitude of the Soul" of the man of culture leads up to that on the "Joy of "Art," where the author draws the conclusion that the desire for sympathy tends to counteract the consciousness of the solitude of the soul, which is increased by intense culture of the *ego*. Very rightly, too, he concludes that "the ideal, "therefore, is not to cultivate our souls and to "despise humanity in general, but to strive after "communion with humanity by expressing our- "selves lucidly, definitely, and objectively." Naturally our author complains of the crowds of vapid paintings which cover the walls of our exhibitions, where imagination and technique are equally wanting. But what can be expected, he argues, when apparently the *raison d'être* of the Royal Academy of Arts is the annual Private View and Banquet, with its post-prandial eloquence by Ministers of the Crown on the political situation? The writer calls attention to the noteworthy development in all art from Idealism to Realism, through the gradual education of the eye. The painters of the fourteenth century were the natural progenitors of the unimaginative executants of the seventeenth century, and the ideal backgrounds of the early Italian Masters yielded to the naturalist landscapes of Constable and Gainsborough, whose successors are the more scientifically naturalist landscape painters of the present day. The general conclusion is that the gradual development of the sense of beauty may, it is hoped, lead to further expansion of artistic expression, but it must be accompanied by a greater striving after the ideal. It will be seen that the work is pregnant with ideas which will be of interest to all students of Art.—R. A. Briggs.

(20.)

TECHNICAL LEGAL QUESTIONS.

Arbitrations: A text-book for Surveyors in tabulated form. By Banister Fletcher. 2*nd ed. London,* 8o. 1893. [*B. T. Batsford*, 52, *High Holborn, W.C.*]

Valuations and Compensations. By Banister Fletcher. London, 8o. 1893. [*B. T. Batsford*, 52, *High Holborn, W.C.*]

A Digest of the Law of Easements. By L. C. Innes. 4*th ed. London,* 8o. 1893. [*Stevens & Sons, Ltd.*, 119 *&* 120, *Chancery Lane, W.C.*]

A Collection of the Statutes regulating Building within the administrative county of London; with concise notes and cross references. By William Russell Griffiths, LL.B. Lond n, 8o. 1893. [*William Clowes & Sons, Ltd.*, 27, *Fleet Street, E.C.*]

To those architects who banish every thought but that of art, the multitudinous questions of a technical and legal character which, *nolens volens*, intrude themselves into professional practice are foreign, and must either be ignored or relegated to the consideration of others.

Though either of these methods may be agreeable to some architects, they are not necessarily profitable to the client; for the professional adviser who knows nothing of the value of property, the Building Acts, or the Law of Easement, may allow his client to embark in building operations ending in heavy loss or a lawsuit.

Legal points may arise in connection with building which a client and even a lawyer cannot always be expected to foresee, but which an architect should be able, either by education or experience, to anticipate.

I would not for a moment counsel a young architect to give his client legal advice, lest he should make as bad a lawyer as a certain noble

lord, learned in the law, makes a bad architect, or be like a very learned recipient of the Royal Gold Medal, who, years ago, in explaining the method by which he had attained his eminent position left the impression on my mind that he had learnt everything but the art of architecture.

An architect should, however, know enough to see dangers ahead, and the necessity of obtaining the advice of a lawyer or specialist.

In the possession of such a specialist as Professor Banister Fletcher we are fortunate; and many would-be valuers, arbitrating surveyors, and architects will welcome the new edition of his *Arbitrations*, and of his *Valuations and Compensations*. Through a want of any knowledge of the worth of property, such fictitious values are often given for sites and buildings as to cripple their future development, and therefore cause a loss of employment to the architect. To the uninitiated the rent is generally taken as the main index to the saleable value of a house, but a study of *Valuations and Compensations* will show that there are many other considerations to be weighed.

I once knew a ten-roomed house offered for sale at £100, which I found would be dear at a gift.

Mr. L. C. Innes, in his fourth edition of *A Digest of the Law of Easements*, gives such copious and graphic illustrations as to turn this heavy subject into light and digestible reading, and to make an easy road among the many pitfalls which beset the architect when he has to deal with rights of way, light, air, drains, and watercourses.

Of the Building and cognate Acts, Mr. William Russell Griffiths treats in a manner useful to those who are interested in London building law, as it shows, in a chronological arrangement, the gradual development of the law to meet the requirements of a rapidly increasing city.

This chronological record may raise in the pessimistic mind the thought of jerry-building, dangerous iron structures, bad drainage, sky-signs, advertisements, which last no law has yet touched; but the more cheerfully-minded reader, with a *Hogarth* before him, may rejoice in the decrease in incendiarism since the passing of the first Building Act in 1774, and in the more respectable and regular appearance of streets since Michael Angelo Taylor's Paving Act of 1817, the regulation of slaughter-houses and other noxious businesses in 1844, and the many benefits arising from the well-considered scheme for the local government of London, embodied in the Local Management and Building Acts as they were passed in 1855 and have been subsequently amended.

It may be that the study of this work will also encourage those who are now engaged in suggesting further amendments in the law; for it shows that where evils have been realised, and the law has shown, in unmistakable terms, an intention to abate them, good results have followed.

It might also afford some discouragement to the present popular local government, go-as-you-please kind of legislation.—Arthur Baker.

OBITUARY.

John Garrard Elgood, *Fellow.*

1833–1893.

Mr. Elgood, who died at his residence, Swiss Cottage, Bowdon, in his 60th year, was a native of Leicester. Early in life he was a pupil of Messrs. Bowman and Crowther, of Manchester, to whom he was articled about the year 1847, and served with them for a period of seven years, during which time he was largely employed on their valuable work entitled *The Churches of the Middle Ages*.

In the year 1855 he became my assistant, and for upwards of twenty-five years rendered me most faithful and zealous service, until in 1881 he became my partner, and in conjunction we carried out works in various parts of the country, of which the following are some of the more important:—The Harrogate Bath Hospital, the Wigan Infirmary (various enlargements); a large block of offices and other buildings for Messrs. Beyer, Peacock & Co.; Prestwich Workhouse (new wards, &c.), several residences at Barnt Green, Bromsgrove, Worcestershire; Lodge and various additions at Sale Old Hall, Sale, Cheshire; Memorial Fountain to the late Lord Frederick Cavendish, at Bolton Abbey; Memorial Shrine to the late Richard Peacock, Esq., M.P., at Gorton; Rosslyn Hill Chapel, Hampstead (new chancel); Free Library, Hindley, Lancashire; Manchester Literary and Philosophical Society (new Portico and other additions); Snitterfield, Stratford-on-Avon, enlargements for the late R. N. Philips, Esq., M.P.; Dukinfield Old Chapel (new west front, &c.); various school buildings at Manchester, Monton, Altrincham, Bestwood Park (Notts), &c.; the Manchester New College, Oxford; the new Infirmary, Halifax, Yorkshire.

In the autumn of 1891 Mr. Elgood contracted a severe chill, which was followed by a serious illness necessitating an operation, and his illness having lately assumed a critical form, he died on the 8th inst.

Mr. Elgood was an unmarried man, of a singularly modest and retiring disposition, but his professional knowledge and attainments were very considerable. He was a man of calm, sound judgment, had a rare appreciation of the details of Gothic architecture, and was an accurate and a most conscientious draughtsman. He was well known among his professional brethren of the Manchester Society, and had taken a very warm interest in the amalgamation into one body of the Senior and Junior Societies in Manchester. Elected an Associate of the Institute in 1874, he became a Fellow in 1890.—Thomas Worthington.

James W. Wild.

Through the death of James Wild the Profession loses a link with a former generation, although practically it is over fifty years since he dropped out of our ranks, on joining the German archæological expedition to Egypt under Dr. Lepsius.

A son of Charles Wild, a painter of architec-

tural subjects and first Secretary of the Water Colour Society, he was born in 1814, and in 1830 was articled to J. Basevi, in whose office he studied Gothic architecture, by preference, and made such satisfactory progress that, on completing his articles, he was entrusted by his master with the designing and building of a country church.

Other commissions followed, and before he was twenty-six he had built six churches, including Coates Church, Whittlesea; St. Lawrence, Southampton; and Barton village church. Although considered successful by his contemporaries, he was profoundly discontented with his work. He chafed at the various restrictions which in those days prevented the Gothic designer from following the leading characteristics of the style, especially at the demand for galleries, which he considered destructive of that effect of vertical line which is asserted in the best examples of Gothic work. Another cause of his discontent was the parsimonious expenditure on sculptured and coloured ornamentation, both of which he considered essential to the proper rendering of the Gothic style. To obtain richness of effect without exceeding the limit of cost, which was usually at the rate of £4 per sitting, Wild adopted the Byzantine style of Italy, intending to rely on the brickwork for decorative effect over the large surfaces, and from the expenditure economised on the walls to find the means for more costly decoration in certain places where it would be more helpful to the general appearance of the design.

Both Coates and Barton churches were of Norman style; St. Lawrence, at Southampton, was Early English, probably owing to the instructions of the Committee. It was only when commissioned to design Christ Church, Streatham, that he had an opportunity to test the capabilities of the Byzantine style, and the result was "one " of the most original and refined churches of " modern times."

Before the decoration of this church was completed Wild joined the Lepsius expedition to Egypt. In 1842, and until 1848, he travelled in Egypt, Syria, Turkey, Greece, Italy, and Spain, collecting in his note-books a mass of delicately drawn details which more properly reflect the ideal he sought than any of his subsequent works exemplified. It was a curious trait in his character that he never was an antiquary, nor cared for the great names of those connected with the edifices he devoted so much time to study.

This is to be regretted, as he possessed, in a remarkable degree, the necessary analytical, observant power, which was well shown in his discovery, whilst with Lepsius, of the manner in which the Great Pyramid was constructed. He cared more for dwellings of burgher people than for temples or palaces, and as these houses were selected for careful study on their merits rather than for their history, in his sketch-books an invaluable record has been preserved of domestic interiors, especially of Cairo and Damascus, which have long since been swept away before modern improvements.

Returning in 1848, he recommenced practice with three very remarkable works—the designs for St. Mark's Church, Alexandria; St. Martin's Schools, Endell Street, Long Acre; and the Water Tower at Great Grimsby, which ranks with the great towers of the world in height and simple beauty of form. Each of these works deserves a separate monograph, as they each illustrate a different adaptation of Byzantine architecture to the several requirements of a church in a tropical climate, a parish school in London, and a beacon tower at a northern sea-port. Whilst thus fully engaged he was appointed decorative architect to the Great Exhibition of 1851, when suddenly his health completely failed, and for several years he was incapacitated for work of any kind. In 1863 Wild was engaged at the South Kensington Museum in various works in connection with the Oriental Collections, and subsequently designed the Bethnal Green Museum, the Architectural Courts at South Kensington, the British Legation at Teheran, and the Eastern and Western Galleries of the Horticultural Gardens—now the Indian and Science Museums.

These works were all carried out, but Bethnal Green suffered by the abandonment of the colonnaded forecourt and Campanile tower, from the loss of which the design remains imperfect.

Two other commissions—the Consular Buildings at Alexandria, the design for which was exhibited at the Royal Academy in 1870, and the proposed permanent Exhibition Buildings on the site of the present Imperial Institute—were abandoned from different reasons; and for several years Wild occupied himself with only such decorative work as he considered congenial to his taste, often refusing commissions which were hampered by conditions.

His appointment to the curatorship of the Soane Museum in 1878 was in strict accordance with the intentions of the Founder. James Wild was essentially an artist, strictly honourable and unselfish. His life's work was more remarkable for quality than quantity, so far as executed works were concerned; he possessed a fund of knowledge which rendered him peculiarly suitable for the guardianship of a museum, and, besides, that courtesy and readiness to help which will long be remembered by those who visited that remarkable institution.

Beyond some alterations and additions to the Soane Museum he did not add to the list of his executed works, but spent most of his time in the study of applied ornament; for to the last he remained a student, ever desirous of increasing his knowledge. He did not live to see the completion of his work in the Museum; everything was ready for the commencement of the coloured decoration of the additional rooms, when his short fatal illness finished his labours. Fortunately, the designs were not only complete but sanctioned by the Committee, and there is every probability that, under the skilful direction of his successor, Mr. Wyatt Papworth, this last record of Wild's work will find a fitting shrine in Sir John Soane's Museum.—C. Purdon Clarke.

ARCHITECTS' BENEVOLENT SOCIETY.

The Annual General Meeting, March 1893.

[Mr. J. Macvicar Anderson, *President*, in the Chair.]

The Forty-third Annual General Meeting of the Architects' Benevolent Society * was held on Wednesday, 8th inst., Mr. J. Macvicar Anderson, President *ex officio* of the Society, in the Chair. The preliminary business having terminated, the Report of the Council for the year 1892-93 was read as follows:—

GENTLEMEN,—It is with considerable satisfaction that the Council of the Architects' Benevolent Society are able to congratulate the Society on its continued stability and usefulness. Although the amount received from donations was small compared with several previous years, they have been enabled to increase the invested capital, owing to a careful distribution of grants, and also to the fact that arrears amounting to some £36 have been received by the Hon. Treasurer. This increase to the capital has been effected without diminishing the good done by the Society, for the amount expended in 1892 in relief was £419 as against £399 in 1891. It is earnestly hoped that those successful members of the profession who do not at present contribute to the funds of the Society may realise that there are many of their less fortunate brethren who, through afflictions, are unable to follow their profession, and that there exist widows and orphans of many who have left—in a large measure unavoidably—little or nothing for their families. Great is the need, and the Council have no hesitation in maintaining that it is the duty of all members of the profession to add at least their mite to the funds of the only Benevolent Society which exists for the exclusive assistance of architects and their widows and orphans in necessitous circumstances.

Seven meetings have been held by the Council during the past official year. Three pensions of £20 each have been paid, and the sum of £359 has been distributed among twenty-one persons. It has been the aim of the Council—it is hoped with a certain amount of success—to afford adequate relief to the really deserving applicants, and not to expend the funds entrusted to them in a larger number of small, and therefore frequently less useful, gifts. The subscriptions received for 1892 amounted to £303—a slight diminution from those in 1891, when they reached the sum of £309. The arrears for 1891, however, paid in answer to a special appeal, were £36. 15*s.*, making, with subscriptions paid in advance for 1893, a total of £345. 7*s.* 6*d.* as against £313. 17*s.* in the previous year. The donations, as before mentioned, show a falling off during the year, being only £28 as against £57 in 1891. The chief contributions were from Messrs. N. S. Joseph, J. G. Finch Noyes, Charles J. Shoppee, the Leicester and Leicestershire Society of Architects, and the Nottingham Architectural Society. The Architectural Association and the Royal Institute of the Architects of Ireland continue their subscriptions of ten guineas and three guineas respectively.

With reference to the capital of the Society, the Council are gratified to state that, although still some £1,600 short of the £10,000 so earnestly desired by many, it was increased on the 31st December last by the purchase of £100 Caledonian Railway 4 per cent. Debenture Stock, making, at cost price, a total of £8,340 as against £8,212 on the previous December. The present market value is about £9,250. While mentioning this subject your Council cannot but refer with deep regret to the loss the Society has sustained by the death of Mr. John Gibson, a regular subscriber and frequent donor since the year 1851. Mr. Gibson, who on several occasions during the forty-two years of his connection with the Society served on the Council, showed the interest he continued to take in its welfare by a most generous bequest of £500, free of duty, which will be forthwith invested as an addition to capital. Such thought for the needs of those in distress and such proof of confidence in the judicious distribution of the Society's funds are worthy of much gratitude and deserving of emulation.

The Council have further to record with great regret the decease of Mr. W. A. Boulnois, also a subscriber for nearly forty years, and many times an active member of Council between the years 1860 and 1881; of Mr. R. A. Hill, a subscriber since 1883; of Mr. R. J. Johnson, who first contributed in 1877; of Mr. Joseph Peacock, a subscriber from 1859; and of Mr. J. Goldicutt Turner, for some twenty years a subscriber, and the Hon. Secretary of the Society from 1876 to 1880.

With reference to the Income Account it may be of interest to note that although the income of the Society is now some £600 per annum, with a corresponding expenditure, the expenses for the past seven years or more have never exceeded £60 per annum, and for several years were considerably under that sum. As an instance of the present economical working of the Society in comparison with past years, it may be stated that from 1862 to 1880, with an income ranging from £170 to £300 per annum, the expenses averaged £75. It is, however, considered advisable to endeavour further to increase the income of the Society, and to extend the field of its beneficent actions, by making its existence and objects more widely known both to the profession and the public. This will naturally lead to increased expenses, but not, it is anticipated, out of proportion with the increased good which would be thereby effected. As an instance of this, the Council have advertised in the professional journals the fact that a pension of £20 is vacant. Applications for this pension must be sent to the Assistant Secretary on or before the 29th inst., and the election will take place next April.

The following gentlemen, having served three years, retire by rotation from the Council, namely:—Mr. Wm. Emerson, Mr. Henry L. Florence, Mr. Thomas M. Rickman, F.S.A., Mr. Aston Webb, and Mr. Henry Cowell Boyes. To fill the vacancies caused by these retirements, the Council have the pleasure

* The object of the Society is to afford assistance to those in necessitous circumstances, who have been engaged as Architects, or Architect's Assistants, and to their Widows and Children. The Members of the Society consist of Subscribers, Annual and for Life. An Annual Subscriber of One Guinea is entitled to be present and vote at all General Meetings, with the privilege of recommending annually two Applicants for relief, and one more for every additional Guinea annually subscribed. A Donation of Ten Guineas constitutes a Life Member, who is entitled to the same privileges as an Annual Subscriber of One Guinea.

to nominate Mr. Arthur Ashbridge, Mr. Thomas Blashill, Mr. J. Henry Christian, Mr. Percivall Currey, and Mr. Sydney Smirke, all of whom have consented to serve if elected.

The Balance Sheet and Income Account for the year ended the 31st December 1892, duly audited by Mr. John Hebb and Mr. Percivall Currey, are herewith submitted.

Dr. *Income Account for the Year ended 31st December 1892.* *Cr.*

DISBURSEMENTS.	£	s.	d.	£	s.	d.
To Three Pensions	60	0	0			
To Grants paid to Applicants...	359	0	0			
				419	0	0
To Expenses :—						
Assist.-Secretary's Salary	45	0	0			
Stationery, Printing, and Advertisements, &c.....	5	15	7			
Purchase of Stock.—Fees, &c.....	1	11	8			
				52	7	3
To Amount transferred to Capital Account				100	0	0
To Balance carried forward				75	11	10
				£646	19	1

RECEIPTS.	£	s.	d.	£	s.	d.
By Balance from last Account (1891).....				46	6	11
By Dividends on Stock :—						
£4,500 Lond. and N. W. Railway 4 per Cent. Debenture Stock	175	10	0			
£2,100 2¾ per Cent. Consols	56	6	8			
£600 Caledonian Railway 4 per Cent. Debenture Stock.....	23	8	0			
				255	4	8
By Arrears of Subscriptions (1891)	36	15	0			
By Subscriptions, 1892	303	7	6			
By Subscriptions paid in advance (1893)	5	5	0			
				345	7	6
				£646	19	1

Dr. *Balance Sheet: 31st December 1892.* *Cr.*

To Capital :—	£	s.	d.	£	s.	d.
£4,500 Lond. and N. W. Railway 4 per Cent. Debenture Stock, purchased for	5315	16	2			
£2,100 2¾ per Cent. Consols, purchased for ...	2110	6	2			
£600 Caledonian Railway 4 per Cent. Debenture Stock, purchased for...	773	0	0			
				8199	2	4
Cash in hands of Bankers on 31st December 1891	13	3	8			
Donations received in 1892	28	12	0			
Cash transferred from Income Account	100	0	0			
				*141	15	8
To Balance at credit of Income Account				75	11	10
				£8416	9	10

By Property :—	£	s.	d.	£	s.	d.
£4,500 Lond. and N. W. Railway 4 per Cent. Debenture Stock (cost)	5315	16	2			
£2,100 2¾ per Cent. Consols..... (cost)	2110	6	2			
£700 Caledonian Railway 4 per Cent. Debenture Stock.....(cost)	906	5	0			
Cash in hands of Bankers	8	10	8			
				8340	18	0
By Balance of Cash in hands of Bankers...				75	11	10
				£8416	9	10

* £133. 5*s*. 0*d*. has been expended on purchase of £100 Caledonian Railway 4 per Cent. Debenture Stock, as per contra.

Examined with the books and vouchers and found correct, 2nd March 1893.

JOHN HEBB }
PERCIVALL CURREY } *Auditors.*

The President having moved the adoption of the Report, Mr. Wm. Kidner seconded the motion, which was unanimously adopted.

A vote of thanks to the outgoing Members of Council, proposed by Mr. Wm. Grellier and seconded by Mr. John Cotton, having been passed, was acknowledged by Mr. Wm. Emerson; and the Council for the year of office 1892–93 were elected, by acclamation, as follows:—The President for the time being of the Royal Institute, President; Messrs. Fred. Chancellor, Rowland Plumbe, Augustus W. Tanner, H. H. Collins, Thomas Harris, W. Hilton Nash, J. G. Finch Noyes, Andrew Oliver, Charles J. Shoppee, Arthur Ashbridge, Thomas Blashill, J. Henry Christian, Percivall Currey, and Sydney Smirke; and the Hon. Treasurer and Hon. Secretary were re-elected.

Donations of £20 from Mr. Andrew Oliver, £5. 5*s*. from Mr. Percivall Currey, and £5. 5*s*. from Mr. Sydney Smirke having been announced, the usual votes of thanks were passed to the Royal Institute for the use of rooms during the year and to the President for taking the Chair, and terminated the proceedings.

LEGAL & PARLIAMENTARY NOTES.

LORD CHIEF JUSTICE COLERIDGE AND THE INSTITUTE.

BURR *v.* RIDOUT:* CORRESPONDENCE.

This case, which has attracted a great deal of attention from certain observations of the Lord Chief Justice, made in his Lordship's summing up, was reported [from *The Times*] and commented on, about a month ago, in *The R.I.B.A. Journal*. Since then, correspondence on the subject has taken place, and the same is here published with his Lordship's consent:—

The President to Lord Coleridge.

11th March 1893.

MY LORD,—The attention of the Council of the Royal Institute of British Architects has been directed to your Lordship's remarks addressed to the jury in the case of Burr *v.* Ridout, in which, referring to the Schedule of Professional Practice and Charges of Architects published by this Institute, your Lordship is reported in *The Times* of the 22nd ult. to have said that you "would not allow the Institute to dictate to "juries what sum was to be paid for work not "done;" and again, "it was a most unjustifiable "attempt by a body of men for their own advan-"tage and to increase their own emolument."

With great reluctance I am obliged to take exception to these statements, because, were they to pass unnoticed, it would naturally be inferred that their justice is admitted.

To dictate to juries is a grave offence, of which I need scarcely say this Institute is innocent alike in thought and deed. Far from desiring to dictate to others, we do not dictate even to our own members.

The Institute publishes a Schedule of Professional Practice and Charges, a copy of which I enclose, which is not in any sense a code of imposed rules, but simply the embodiment in a convenient form of the general practice which usage has sanctioned. The charges referred to in this Schedule are not binding, or, to use your Lordship's expression, "settled," in the sense of being obligatory. An architect is at liberty to charge what he deems his services to be worth by agreement with his client. Clause 9 of the Schedule was never intended to justify, and does not appear to me to justify, such an imaginary case as that by means of which your Lordship illustrated its supposed application. It necessarily assumes that the architect has performed the work intrusted to him in reasonable compliance with the limitations imposed upon him by his client, and mutually agreed to with regard to expenditure.

It is to be regretted that learned Counsel misinterpret the Schedule by constantly referring to its clauses as "the Rules of the Institute of "Architects." The Institute has no such rules. The aim of the Royal Charter under which it is incorporated is not to impose arbitrary restrictions, but to promote the interests of architecture.

It is no doubt attributable to such erroneous interpretation on the part of Counsel that your Lordship was led to make the remarks I have referred to, and I feel sure you will be glad of the opportunity of relieving an honourable body of men from reflections which, if true, could not fail—emanating from so high an authority—to be prejudicial to the high character which it should be the ambition of every architect to maintain, and which it is the leading aim and object of the Royal Institute of British Architects to promote.—I have the honour to be, my Lord, your Lordship's most obedient servant,

J. MACVICAR ANDERSON, *President.*

Lord Coleridge to the President.

1, Sussex Square, W.

SIR,—I have the honour to acknowledge the receipt of your letter of the 11th of March containing your observations upon some remarks of mine in the course of my summing up to the jury who with me tried the case of Burr *v.* Ridout, and which I understand you to have copied from a report of that summing up given in *The Times* newspaper of the 22nd February. I have no note of what I said, but I dare say my remarks are reported with substantial accuracy. I certainly have long and strongly entertained, and do entertain, the opinions and feelings therein expressed. They were not expressed in any exercise of a supposed judicial privilege to deliver oracular opinions on matters irrelevant to the issue, but they were necessary, as I think, to be expressed for the proper legal conduct of the case, and are to be justified by such necessity. The only words which, if I ever used them, I regret are "for their own "advantage and to increase their own emolu-"ment." These words seem to impute a motive, and so far as they do I regret them. I have no right to confound the consequences of a rule, though very plain, with the motives of those who passed it.

Further than this I am unable to go. With the terms of contracts, however absurd and unjust they may appear, when both parties to them are free and know what they are about, I think it unwise and improper to interfere. But to justify the addition of preposterous terms to a contract, on the ground of rules made by a body to which one of the contracting parties belongs and the other does not, and of which the last-mentioned party has never heard, is a very different matter. So far as any authority and influence of mine extends it never shall be done. I am obliged occasionally to say this in public in consequence of Counsel, as you yourself state, endeavouring to justify charges utterly indefensible by citing the Rules of the Institute in their defence. Where there is no specific sum for payment agreed upon, the law implies a contract to pay what is reasonable, and what is reasonable is for the jury, not for the Institute of Architects.

I cannot help, before I conclude, mentioning as an illustration of the use to which the "Scale of

* See pp. 229-32 *ante*.

"Charges" is sometimes put, a matter which came to my own knowledge. Many years ago a great nobleman employed an architect of great eminence to give him designs and estimates for a great work of restoration and almost rebuilding which he desired to undertake. The architect made designs and gave estimates. These were so very large that the nobleman gave up the work as far beyond what he could afford. He purchased the drawings, paid the architect several hundred pounds for his trouble, and gave the matter up. More than ten years afterwards he had recourse to another architect, and executed under his control an entirely different building for less than half the money estimated by the first architect. When the work was completed the first architect demanded 2½ per cent. upon the nobleman's outlay, and justified this demand by the "Scale of Charges" of the Institute. I was consulted by the nobleman, and I advised that the claim was an extortion, and that the nobleman should decline to pay one penny. The nobleman took my advice, and the architect's demand was not further prosecuted. This is by no means a solitary, though perhaps the worst, instance within my own knowledge of the manner in which some architects, and architects of eminence, use the "Scale of Charges" of the Institute, and I must claim the right to speak of such conduct as I think it deserves, when the duty appears to me to be cast upon me of speaking at all.

I should be very sorry to be supposed to reflect upon the honour of a profession to which Michael Angelo and Sir Christopher Wren belonged. I am bound to respect their honour as much as I do my own; and I hope I have never been found wanting in this part of my duty.—I am, Sir, your obedient humble servant, COLERIDGE.

P.S.—Let me add that I have hardly expressed adequately my sense of the perfect courtesy and good feeling with which you have discharged what must have been to you an unpleasant task, and I beg of you to accept my hearty acknowledgments.

C.

The President to Lord Coleridge.

20th March 1893.

MY LORD,—I beg leave to acknowledge your Lordship's letter and to express my obligation for the courtesy with which you have so promptly and fully replied to the remarks I reluctantly felt it my duty to address to you on behalf of the Royal Institute of British Architects. I have no reason to regret having done so, inasmuch as I have thus been so fortunate as to have elicited from your Lordship a frank expression of regret—which I much appreciate—for having used words which seemed to impute an unworthy motive to the Royal Institute.

If I might refer to the opinion to which your Lordship has given forcible expression, respecting the use that is sometimes made of the Schedule of Professional Charges published by the Royal Institute, I would say with confidence that, although the Schedule may not be perfect in point of phraseology, it was certainly never intended to be used as a lever for claiming extortionate charges, and that such use, if resorted to, is perfectly unjustifiable.

In respect to the case which your Lordship has quoted by way of illustration, the only surprise I experience is how any amount of ingenuity could extract from the Schedule of the Royal Institute any justification for raising a new claim more than ten years after a settlement had, as I understand, been arrived at by mutual agreement.

The remarks to which I took the liberty to direct your Lordship's attention have created a great deal of soreness among members of my profession, and I feel sure that it would be the source of much satisfaction were this correspondence to be published in the *Journal of Proceedings* of the Royal Institute. I venture, therefore, to express the hope that I may be favoured with your Lordship's sanction to such publication in the next number of the *Journal*.—I have the honour to be, my Lord, your Lordship's most obedient servant,

J. MACVICAR ANDERSON, *President*.

Lord Coleridge to the President.

22nd March 1893.

SIR,—In reply to your letter of March 20th, I am directed by the Lord Chief Justice of England to say that his Lordship has no objection to your publishing the correspondence which has recently passed between him and yourself relative to the case of Burr *v.* Ridout, and his Lordship's remarks thereon.—I am, your obedient servant,

EGERTON B. LAWFORD, Secretary.

BOOKS RECEIVED.

AUSTRALIAN BUILDER. A Plea for Colour in Colonial Architecture. By John B. Barlow. Pam. 8o. Sydney 1892. From the author.

BATSFORD. Architecture of the Renaissance in England: illustrated by a series of views and details from buildings erected between the years 1560–1630, with historical and critical text. By J. Alfred Gotch, assisted by W. Talbot Brown. Part V. Fo. Lond. 1893. From the publisher.

Arbitrations. A Text-book for Surveyors, in tabulated form. 2nd edition. By Banister Fletcher. 8o. Lond. 1893. From the publisher.

Valuations and Compensations. A Text-book for Surveyors, in tabulated form. By Banister Fletcher. 8o. Lond. 1893. From the publisher.

CROSBY LOCKWOOD & SON.—Lockwood's Builder's, Architect's, Contractor's, and Engineer's Price-Book for 1893. A comprehensive handbook of the latest prices of every kind of material and labour in trades connected with building, including also a great variety of the most recent information in all matters concerning these trades. Edited by Francis T. W. Miller. From the publishers.

KEGAN PAUL, TRENCH, TRÜBNER & Co., LD. Eskdale Drift and its bearing on glacial geology. Glacial Geology: old and new. Faulting in Drift. By T. Mellard Reade. Pam. 8o. Lond. 1893. From the author.

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THE PROGRESSIVE EXAMINATIONS, MARCH 1893.

THE PRELIMINARY EXAMINATION.

The Hon. Secretary's Statement to the General Meeting, Monday, 17th April 1893.

GENTLEMEN,—At a Preliminary Examination to qualify for Registration as Probationer of the Royal Institute of British Architects, which was held in London, Bristol, and Manchester, on the 21st and 22nd ultimo, 94 applicants passed or were exempted, and 16 others were relegated to their studies for periods. The names of the gentlemen who have thus qualified as Probationers of the Institute, and whose ages vary from 15 to 22 years, are given in the following table and in alphabetical order:—

Name of Probationer	*Address of Probationer*	*Name of Master*
Herbert John ALDWINCKLE	11, Wolseley Road, Crouch End, N.	Messrs. Cubitt & Collinson
Horace James ASH	Wood Street, Willenhall, Staffs.	Mr. Benj. Baker
Joseph Phillips BAKER	54, Walsall Rd., Willenhall, Staffs.	Mr. Benj. Baker
Henry Rotherham BARKER	The Manse, Blaby, Leicester	Mr. John Wigg
Arthur Cecil BARTON	21, Portland Crescent, Leeds	Mr. T. Butler Wilson
Nevile Charles BATHURST	Holy Trinity Vicarage, Eastbourne	S.-Eastern College, Ramsgate
William Somerville BEAUMONT	The Firs, Wilmslow, Cheshire	Messrs. J. W. & R. F. Beaumont
Thomas Henry BELL	156, King Henry's Road, N.W.	Mr. A. Hessell Tiltman
John BENNETT	Tegid House, Builth Wells, Brecon	Mr. Telfer Smith
Sidney Walter BENSTED	11, Wakehurst Road, Wandsworth	Mr. C. Stanley Peach
John Davys BERESFORD	23, Park Road, Dulwich, S.E.	Mr. Lacy W. Ridge
Charles Albert BERNARD	3, St. Stephen's Chambers, Bristol	Redland Hill House, Clifton
William Charles BIGG	171, Burdett Road, Bow, E.	Mr. Charles E. Sayer
Arthur Julius BIRD	Ashley House, Rochester	Mr. Edward Burgess
Wilfrid BOND	Sleaford, Lincolnshire	Messrs. Charles Kirk & Sons
Henry Thomas BROMLEY	2, Devonshire Square, E.C.	Mr. R. A. Briggs
John Edward BURTON	45, Oxford Street, Norwich	Mr. G. J. Skipper
Henry Munro CAUTLEY	Westerfield Rectory, near Ipswich	Ipswich Grammar School
Frederick John CLARK	4, Newtown Street, Leicester	Mr. Stockdale Harrison
Arthur John Granville CLAYTON	St. Cuthbert's, Canterbury	Messrs. Stenning & Jennings
Robert Hampton CLUCAS	7, Beaconsfield Street, Liverpool	Mr. C. O. Ellison
Percy Edward COLMAN	Wadenhoe, Bournemouth	Messrs. Lawson & Donkin
Gilbert St. John COTTRILL	Bank Buildings, Wolverhampton	Mr. Joseph Lavender
Ernest Barraclough CROSSLEY	100, Clarence Street, Bolton, Lancs.	Mr. Marshall Robinson
Thomas Brammall DANIEL	Seymour Cottage, Seymour Road, Higher Crumpsall, Manchester	Mr. J. D. Harker
Tom Norman DINWIDDY	12, Croom's Hill, Greenwich	Mr. Thomas Dinwiddy
Arthur Sidney DORRELL	109, High St., Brierley Hill, Staffs.	Mr. Alfred Long
Alfred DRAKE	70, High Street, Rochester	Mr. John Drake
William Battley DUKES	Sunnyside, Rugby	Rugby School

Name of Probationer	*Address of Probationer*	*Name of Master*
Arthur James Ecclestone	27, Dene Side, Great Yarmouth	Mr. J. W. Cockrill
Edwin Watson Eldridge	Parsonage, Throop, Christchurch	Mr. J. Stevens
Ernest Hollyer Evans	Burleigh Court, Brimscombe, Stroud	Brimscombe Polytechnic
Frank Culling Evans	Littleworth Vicarage, Faringdon	Marlborough College
James Edwin Forbes	Eskbank House, Dalkeith, N.B.	Mr. G. Washington Browne
James Ernest Franck	44, Boundary Road, N.W.	Mr. R. E. Tyler
Arthur Reginald Groome	Chorlton-c-Hardy, nr Manchester	Mr. Thomas Muirhead
Richard Thomas Grove	27, St. Agnes Place, Kennington, S.E.	Mr. T. Barnes-Williams
George Frederick Grover	6, The Terrace, Brentford	Mr. Keith D. Young
Herbert Haines	10, Brereton Road, Bedford	Mr. R. Lund
Bernard Hardman	61, Albion Street, Leeds	Mr. W. H. Thorp
John Joseph Harper	Brades Village, Oldbury	Mr. William Doubleday
Charles William Harris	96, Durning Road, Liverpool	Mr. Henry Hartley
Vincent Harris	66, King Street, Plymouth	Mr. James Harvey
Albert Herbert	24, Upper King Street, Leicester	Mr. James Tait
Laurence Hobson	34, Alfred Road, Birkenhead	Mr. Alfred Culshaw
Orton Holden	64, Cross Street, Manchester	Mr. John Holden
Joseph Holt	Grove Street, Wilmslow, Cheshire	Messrs. Smith, Woodhouse, & Willoughby
Herbert Edward Illingworth	Laurel Bank, Rawdon, near Leeds	Mr. George Foggitt
Frederick Herbert Jermyn	South Heigham, Norwich	Mr. G. J. Skipper
Francis Jones	Beaufort House, Alexander Park, Manchester	Messrs. Barker & Ellis
Henry Aubrey Lane	Waldon House, Forton Rd., Gosport	Mr. C. W. Bevis
Alfred Stuart Little	Sturt House, Twickenham	Mr. C. Herbert Shoppee
Thomas Henry Lyon	Ilsington, near Newton Abbott	Mr. John Watson
Ewan Allan MacDougall	9, Greenhill Park, Edinburgh	Sherborne School, Dorset
Matthew George Martinson	Bellingham, Northumberland	Messrs. Plummer & Burrell
David Montagu	3, Colville Square, Bayswater, W.	Messrs. Chatfeild Clarke & Son
Louis Moore	Forest House, Church Road, Woolston, Southampton	Messrs. Dancaster and McWilliam
Robert Pearson Moorsom	Queen St., Thornaby-on-Tees, Yorks.	Mr. T. Sturdy
William Vincent Morgan	24, King Street, Carmarthen	Messrs. Geo. Morgan & Son
John Harold Mounsey	The Limes, Sunderland	Mr. F. W. Rich
John Newton	8, Pevensey Road, Eastbourne	Mr. A. A. Oakden
William Webb Oliver	Newcastle-on-Tyne	Messrs. Freeman & Robins
Harold Oswald	33, Mosley St., Newcastle-on-Tyne	Mr. Joseph Oswald
William Edgar Paul	23, Apsley Road, Clifton, Bristol	Mr. Walter S. Paul
John Charles Ratcliffe	Melloe House, Broome Lane, Levenshulme, Manchester	Mr. Hartley Hacking
Samuel Roberts	Mount Plym House, Plymouth	Mr. F. A. Wiblin
William Walter Robinson	10, King Street, Hereford	Mr. Robinson
Arthur Henry Roe	2, Hillsboro' Avenue, Exeter	Mr. S. Dobell
Walter Gray Ross	26, Trinity Street, Norwich	Mr. G. J. Skipper
William Thomas Dendy Sadler	26, Rattray Road, Brixton, S.W.	Mr. H. D. Searles-Wood
Frederick John Sawyer	12, Sudeley Street, Brighton	Mr. John G. Gibbins
George Henry Smith	10, Theatre Street, Hythe, Kent	Mr. W. J. Jennings
William Squire	Fern Hill, Whitchurch, Tavistock	Messrs. King & Lister
George Arthur Steane	Westwood House, Clarendon Street, Earlsdon, Coventry	Messrs. G. & I. Steane
Harold Vernon Steavenson	103, Shepherd's Bush Road, W.	Professor T. Roger Smith
Alfred Stevens	5, Bloomsbury Square, W.C.	Messrs. Truefitt & Watson
Samuel Taylor	54, Todmorden Road, Burnley	Mr. V. Dunkerley
Andrew Mitchell Torrance	16, Highbury Quadrant, N.	Mr. George Lethbridge
George Ernest Turner	17, Wharncliffe Road, Sheffield	Mr. C. J. Innocent
Robert Emeric Tyler	71, Gower Street, Bedford Sq., W.C.	University College School
James Joseph Verschoyle	The Firs, Downend, near Bristol	Newton College, Devon
Albert Wheatley Waddington	Broad Oaks, Mirfield, Yorkshire	Messrs. Kirk & Sons
John Lister Walker	13, Drayton Gardens, S.W.	Mr. Lewis Karslake
Francis Burdett Ward	2, Nene Quay, Wisbech	Mr. C. F. Langford
Henry Franks Waring	10, Priory Road, Bedford Park, W.	Mr. R. A. Briggs
John Isaac James Wells	Fleetgate House, Barton-on-Humber, Hull	Mr. W. H. Bingley
Richard Alexander West	12, Meyrick Crescent, Mersea Rd., Colchester	Messrs. J. F. Goodey and T. W. Cressall

Name of Probationer	*Address of Probationer*	*Name of Master*
Robert Marcus Whellock	45, Finsbury Pavement, E.C.	Mr. R. P. Whellock
Charles Ernest White	21, Carlton Street, Castleford, Yorks.	Mr. J. D. Webster
Alfred Alexander Williamson	28, Percy Gardens, Tynemouth	Mr. W. L. Newcombe
Frank Wilson	225, Nottingham Street, Sheffield	Mr. C. J. Innocent
John Henry Wilson	38, Sussex Pl., Onslow Gardns, S.W.	Mr. Thomas Durrans
Walter Harry Woods	Station Road, Petersfield, Hants.	Mr. H. T. Keates
Maximilian Joseph Zimmermann	Colonia, South Hill, Bromley, Kent	Mr. Goymour Cuthbert

PROCEEDINGS.

Monday, 17th April 1893.

Special General Meeting.

[Mr. Currey, *Vice-President*, in the Chair.]

The CHAIRMAN.—The Secretary will read the Minutes* of the Special General Meeting held on Monday the 27th March 1893, and I ask whether it is your pleasure, Gentlemen, that these Minutes should be taken as read?

Professor KERR [*F.*].—I should be very glad if you would allow me, Sir, to make one remark, which is this. I think the Institute ought to recognise the remarkable skill with which the President, Mr. Macvicar Anderson, conducted the correspondence with Lord Coleridge upon a matter with which you are, no doubt, all familiar. Nothing could have been better than the style of the letter which Mr. Anderson wrote to Lord Coleridge, who, as an expert in these matters, himself recognised that fact. At the same time, I think that amongst ourselves we ought to be at liberty to question whether his Lordship had precisely the right facts before him with regard to the question which he cited of a great architect having charged a nobleman 2½ per cent., or attempted to charge him 2½ per cent., ten years after he had been paid for preparing plans which were not carried into execution. You, Sir, and I can both remember all the great architects who have been in practice in London, at all events within the memory of Lord Coleridge; and I think it is almost impossible to conceive that his Lordship could have been quite right with regard to the construction which he put upon the transaction he mentioned, whatever it was. I say no more upon the point; but I am sure that every member of the profession, who values the honour of the profession, will feel that Lord Coleridge must have been mistaken in some way or other. It is, indeed, quite impossible that the transaction could have taken precisely the shape which his Lordship suggested it had. Another point upon which perhaps you will allow me to say one word is this. I suppose it is quite understood that the question of the examination of Fellows is now set finally at rest, so that we shall not have any more trouble or discussion with regard to a matter which has given us so much anxiety.

The CHAIRMAN.—With regard to the remarks of Professor Kerr (which I understand were merely intended to express his personal views to the Meeting, respecting the action of the President in his correspondence with Lord Coleridge), I may say that the Council are at one with him in what he has said as to that matter; and are very much obliged indeed to the President for the way in which he conducted the correspondence with Lord Coleridge. With reference to the case which Lord Coleridge quoted, we thought that his Lordship must have been under some misapprehension; but we did not think it courteous or necessary to continue the correspondence, and therefore the matter was left as it stood.

Mr. LEONARD STOKES [*F.*].—Sir, Professor Kerr has said that the question of the examination of Fellows has been now set at rest. I should like to feel satisfied that that is so. If it is so, would it not be as well that we should have some sort of record placed upon our Minutes that something or other had taken place at our last Meeting with reference to the qualifications of Fellows, and have such Minutes printed in our Journal of Proceedings? I cannot myself find any reference whatever to the question of the examination of Fellows. I wrote a private letter to our President upon the matter, and he told me that it was the custom of the Institute to record only the business which had been done, and I was satisfied with his answer, because he seemed to think that nothing had been done. If, however, as Professor Kerr seems to think, the question has been set at rest, surely it would be advisable that the Minutes should say something about it. There is nothing whatever upon the Minutes about it, and although I am quite ready to take your ruling, Sir, that it is not advisable to enter anything of a half-hearted nature upon the Minutes, I think if any result has been arrived at upon the matter, it should be recorded. I know that the motion was withdrawn, although it had been brought forward by the Council; and although our President, as I understand, does not think that it is worth while recording it, I should think, nevertheless, as it has been brought forward by the Council, and discussed, and as an amendment was proposed and seconded, and only withdrawn upon the distinct request of the Chair, the matter, and the facts with regard to it, should be entered on the Minutes.

Mr. GRUNING [*F.*].—Sir, I think no motion brought forward by the Council was withdrawn. What was moved and withdrawn was a proposition upon which the Council were not unanimous.

Mr. WOODWARD [*A.*].—Sir, if I may be permitted to state what I take to be the views of those who were present at the last Meeting, I think they will agree with me in saying that the subject certainly was not withdrawn for ever, and was not settled for ever. It was settled for that evening, it is true, by the withdrawal of the motion; but there was no idea that that was a final settle-

* See pp. 263–270 *ante*.

ment of the question of qualifications for Fellowship.

Mr. CHARLES FOWLER [*F.*].—I presume, Sir, that the object of Minutes is to record what is done at a meeting, and not what is not done.

The CHAIRMAN.—As I understand, there is an enlargement of the Minutes which can be seen in the "Proceedings," which are always reported fully, so that anybody can see what has passed. I do not think it is necessary to reopen the question as to what has been done with regard to the examination of Fellows. It is settled for the present, and what may happen in the future no one knows. The matter will remain as at present if no one proposes any alteration. Does any one wish the Minutes read? [Mr. LACY W. RIDGE [*F.*].—Sir, I do not wish them to be read unless there is to be a discussion.] No. I now move, Gentlemen, with your permission, that the Resolution of the Royal Institute relating to the suspension of By-law 26 be confirmed.

Professor Kerr seconded the Chairman's motion, and the same was adopted.

The CHAIRMAN.—I now move that the Resolution of the Royal Institute relating to the alterations of By-laws 7, 8, and 9, passed at the last Special General Meeting, be confirmed.

Mr. Ridge seconded the Chairman's motion, and the same was adopted.

*** Mr. Sydney Vacher [*A.*] writes stating that he was incorrectly reported, at page 265 *ante*, in part of his contribution to the Discussion at the Special General Meeting of the 27th ult. He states that, instead of having advocated that "the "Institute could do without Fellows, and should "do without Fellows, who are not entirely archi-"tects," he said the exact contrary—that the Institute, in his opinion, could *not* and should *not* do without such gentlemen.

Twelfth General Meeting (Ordinary).

[Mr. Currey, *Vice-President*, in the Chair.]

The preliminary business of the Meeting included the announcement, by the Hon. Secretary, of the names of 94 gentlemen who had passed the March Preliminary Examination [pp. 281-83 *ante*]. The following Paper was read by the author:—

EXAMINATION OF BUILDING STONES.

By Mr. H. W. Burrows [*A.*]

Mr. President and Gentlemen,—

The subject we have for discussion this evening is one of considerable importance to us as architects, involving as it does a consideration of the principles which should guide us in the selection of stones for building purposes.

An exhaustive treatment of the matter is impossible within the limits of a Paper, and we can, therefore, only deal with some of the more important points. I propose to discuss the principal methods of testing and examining building stones, and to compare their relative values. But, before entering upon this portion of the subject, it will conduce to a clearer understanding of this somewhat complex problem, if we note some of the leading types of structure in building stones, and briefly consider their manner of origin.

ORIGIN OF BUILDING STONES.

Granite.—Typical granite is an igneous rock, composed of a confused crystalline admixture of *quartz*, *felspar*, and *mica*, as essential minerals, variable in their proportion, size, colour, and disposition. The colour of the granite usually depends upon the predominating tint of the felspar, which in some instances shows definite crystalline boundaries; in this case the rock is termed "porphyritic." In addition to the three essential minerals, others, such as *hornblende* and *schorl*, are either added to, or take the place of some of, the essential minerals.

Granite, although of igneous origin, has not necessarily been produced in a molten condition by simple igneous fusion. The enormous pressure induced by superincumbent masses of rock would be sufficient to give rise to intense heat, which, if the pressure were removed, would reduce the mineral constituents to a liquid condition. The pressure, however, producing the heat also maintains the rocks in a more or less solid or semi-plastic state. It has been shown in connection with volcanoes, where their structure has been laid bare by denudation during immense periods of time, that the uppermost part of the volcanic vent contains much silicious material in a more or less altered condition; while as the same mass of rock is traced downwards, a more or less crystalline condition supervenes, until we reach the lowest masses of rock, which are in a wholly crystalline condition, as in granite.

That granites have been formed and consolidated under enormous pressure, in presence of superheated water or vapour, has been very clearly shown by many observers. Included in the quartz of granites are abundant cavities with liquid inclusions, the contents of which have been very carefully investigated by Dr. H. C. Sorby,* and from them he estimated that quartz of granite had probably consolidated under a pressure sometimes equal to that of 76,000 feet of rock. Other authors have shown by different processes, that eighty-four tons per square foot is about the pressure indicated by included crystals, such as those of rock-salt, occasionally found in the fluid cavities.†

That granite is not a *primitive* rock, as stated among others by Gwilt, is abundantly proved by the fact that it frequently occurs as a boss, intrusive through superincumbent rocks, sending out veins and strings through and between them, in many instances completely altering their character.‡

Sandstones.—The origin of sandstones is distinctly attributable to aqueous agencies. The grains of flint or quartz sand are formed by the long-continued attrition of the quartz of granites

* *Quart. Journ. Geol. Soc.*, vol. xiv. (1856), p. 78.

† Geikie, *Text Book of Geol.* (1882), p. 97.

‡ Geikie, *op. cit.* p. 541.

or the silicious materials of other pre-existing rocks, mixed with particles of mica, felspar, iron, or other mineral, in sufficient quantity to give the resultant stone a distinctive character. The presence of sand usually indicates water of no considerable depth and subject to current action; and we therefore constantly find sandstones showing very distinct "planes of bedding" which define the layers of material as they were originally deposited, or wavy ripple marks and uneven bedding joints, recalling to our minds the appearance of a sandy beach from which the tide is receding.

The grains of sand are very variable in size, although fine-grained rocks are perhaps most usual. When the sand grains are very large, the stone is known as a grit.

The silicious grains may be simply compacted by pressure alone, in which case we should not expect to find a very durable or strong stone; but far more commonly the grains are cemented together by a matrix, which may be silicious, calcareous, argillaceous, or ferruginous, and it is mainly upon the nature of this cementing material that the durability of the stone depends, as we shall see later.

The colour of sandstones is also to a considerable extent dependent upon the composition of this cementing material; the oxides of iron impart a red tint when they are present as *hæmatite*, and yellow when as *limonite*. The grey and white sandstones are usually cemented by silica or carbonate of lime; the latter being either crystalline as calcite, or in an amorphous state.

Limestones.—These rocks are also of aqueous origin, carbonate of lime predominating, readily distinguished by being soluble in hydrochloric acid. The carbonate of lime may be very variable in its character, compact, crystalline, or granular, fragmental or amorphous, and it may be deposited by mechanical, organic, or chemical agencies.

Many limestones are formed of the shelly *débris* of the mollusca, deposited layer upon layer, compacted by simple pressure, or cemented by the deposition of a matrix of carbonate of lime, or other mineral substance, in an amorphous or crystalline state.

Enormous deposits of limestone owe their origin to organic agencies. The minute shells of certain lowly organised bodies, the *Foraminifera*, have thus formed the white carbonate of lime called chalk, and the well-known *Nummulitic* limestone, both of which have such an extended range. The thick masses of building stone of the Paris Basin, called by the French *Miliolite* limestone, are also attributable to the same organisms.* Other limestones are produced by the solid skeletons of coral polypes and encrinites, and many of the most beautiful marbles are thus formed, the broken and disjointed stems of the encrinites and the bulk of the coral structure being enveloped in carbonate of lime in a more or less crystalline condition.

The *oolitic* structure so common to many of the well-known building stones has been the object of much investigation. In such stones the granules are more or less perfect spherules of carbonate of lime, which has been deposited in successive concentric layers, in many instances around some foreign substance such as a grain of sand, a small particle of shell matter, or a *Foraminifer*. These spherules are then compacted, adhering by their concentric outer layers, or cemented together by various substances, such as calcite or other infiltering mineral.

It may prove interesting to enlarge upon this point, seeing the number and importance of the oolitic limestones. Oolitic granules are now in process of formation in the Carlsbad springs, near the coral reefs of the Bahamas, and off the coast of Jamaica; but on a much more extended scale at the Needles, Pyramid Lake, Nevada.* The shore there is formed of oolitic spherules of very variable size (as illustrated by the specimens exhibited), and in places they are cemented together "into a solid rock sufficiently hard to "take a polish." Water, charged with carbonate of lime and in a state of agitation, is capable of producing oolitic granules as here shown. The writer has observed the same result produced in a kitchen boiler at Westgate-on-Sea, where the water is obtained from the chalk, and is consequently more or less charged with carbonate of lime. The circulation through the hot-water pipes was doubtless sufficient to keep the particles in constant movement, so that the carbonate of lime had been deposited in detached granules like mustard seed.

In an interesting Paper "On the Structure of "the Jurassic Pisolite" † it was shown that the pisolitic granules were formed by the growth of minute tubuli round a nucleus. This organism is doubtfully referable to the *Foraminifera*, and is called *Girvanella*. The formation of very extensive deposits of sinter, but of *silicious* not calcareous composition, has been attributed to the agency of *algæ*, and the peculiarities of the structure have been illustrated.‡ Quite lately it has been shown that *calcareous* oolitic concretions may be formed in a similar manner.§

It would therefore appear that oolitic structure can be derived from two sources, (*a*) a chemical deposition from water containing carbonate of lime when kept in constant movement by natural or artificial means, and (*b*) by organic secretion from waters charged with calcareous matter. In places a loose oolitic sand occurs in a fossil state, as at Radcliffe Head, near Weymouth, and in this case the centres of the granules are stated to be *Foraminifera*. The introduction of a cementing

* For Building Stones of the Paris Basin, see Harris & Burrows: *Eoc. and Oligoc. Beds of Paris Basin* (1891).

* See *Mon. U.S. Geol. Surv.* vol. xi. (1885), pp. 61–2.

† E. Wethered, *Geol. Mag.* (1889), p. 196.

‡ Ninth Report, *U.S. Geol. Survey* (1889), pp. 619 *et sqq.*

§ *American Geologist*, vol. x. (1892), p. 279.

matrix would produce an ordinary oolitic building stone.

Marble.—Strictly speaking, marble is a crystalline limestone, but the name is often applied to those forms of limestone which are hard enough to receive a polish. A well-known crystalline granular, characteristic form, is that called statuary marble, a section of which is given on Plate II. fig. 8. In many instances marble is of metamorphic origin, that is to say, the original characters have been altered, the carbonate of lime, however originally deposited, having been recrystallised *in situ*. In the course of this change the original impurities of the rock, such as clay, sand, or other minerals, have also become crystalline. Many of the limestones of South Devonshire may be taken as illustrative of this principle. Built up originally by calcareous organisms, the structure and outline of the organic bodies have been entirely, or in great part, obliterated, and a somewhat complex micro-crystalline structure superinduced. This change has been chiefly effected by mechanical pressure and chemical reactions.* Some of the modifications produced by dynamical and chemical forces have been well illustrated and described in a recently published Paper,† wherein it is clearly demonstrated that, by a process of shearing, due to folding of rock masses and consequent lateral displacement, encrinital and oolitic limestones have been entirely altered, and the original minerals in part replaced by chemical solution and infiltration of silica and dolomite, with other mineral substances.

Magnesian or Dolomitic Limestones.—Typically, these are formed of a crystalline aggregate of the mineral Dolomite (54·18, carbonate of magnesia, 45·82 carbonate of lime), in which the carbonate of lime has been combined with carbonate of magnesia in the proportion indicated. Dolomitic limestones are distinguishable from ordinary limestones by their greater hardness and inferior solubility in hydrochloric acid. The composition of the magnesian limestones varies considerably, some, such as Norfal, closely approaching true Dolomite, while others are only slightly dolomitic, like red and white Mansfield. In all cases small percentages of silica, iron, and other accessory minerals are present. An exhaustive treatise on this subject was read before the Institute by the late C. H. Smith in the year 1844.‡ in which the structure, chemical composition, and crushing strength, together with the disposition of the quarries and sections of the same, were fully dealt with.

Sufficient has now, perhaps, been said on the origin of building stones for our present purposes without referring in detail to the argillaceous rocks, or to various basalts, serpentines, and other rocks which are more or less used for building material; and I will proceed to treat the question of structure and the various tests to be applied in determining the quality of stones.

Before selecting a stone for building purposes, it is necessary to assure ourselves of its capability to resist disintegration, whether this be brought about by the action of the atmosphere upon the chemical constituents of the mass, by the mechanical effect produced upon the stone by frost, wind, or other atmospheric and climatic agencies, or by the crushing strain to which the material may be subjected in the structure to be formed by it.

It is often necessary to visit the quarries to ascertain with certainty that blocks of sufficient size can be obtained for the required design, and to note the depth of bed, particularly if we propose to use the material for columns. It has more than once come under the writer's notice that architects have expected to obtain long monolithic columns, in sandstones or limestones, where the depth of the quarry-bed is insufficient to supply stones of the required dimensions. In such cases it becomes necessary to joint the columns, or, if due attention be not paid to the point, we may find them erected as monoliths, with the planes of bedding vertical. The result might prove disastrous if the load had been calculated for upon the resistance to crushing, ascertained in the usual manner from stones bedded horizontally; the crushing strength being much less when the bedding planes are vertical.

In the same quarry we shall notice the beds of stone vary very considerably in disposition, texture, grain, and composition; some are hard, compact, and crystalline, while others are soft and incoherent, so that, with due regard to the particular purpose we have in view, it is necessary to select our stone from some particular stratum.

We may also notice the effect of weathering upon old blocks of the various beds, and frequently find they afford valuable information as to the behaviour of the stone under climatic influences. We may compare the stone with similar material in structures of considerable antiquity, and note the effect produced upon it by the atmosphere. If we can feel assured of the identity of the stone with that we propose to use, there is much to recommend this method of investigation; but as stones of very similar appearances are often vastly different in composition and structure, it is often a difficult matter to feel certain as to their identity.

In any case a more detailed examination is to be preferred, and for this purpose certain tests are usually employed, which may be classed under two main divisions: (*a*) mechanical and (*b*) chemical. Of these I shall only touch upon those regarded by most authorities as of importance, e.g. crushing weight, absorption, specific gravity, Brard's test, the acid test, Smith's test, and chemical analysis. Finally I shall consider another, and, as I venture to think, by far the most important method, that of microscopical analysis.

* E. Wethered, "The Microscopical Structure . . . of the Devonian Limestones of South Devon." *Quart. Journ. Geol. Soc.* vol. xlviii. (1892), p. 377.

† "On Oolitic and other Limestones with Sheared Structure from Ilfracombe." F. Chapman, *Geol. Mag.* (1893), p. 100.

‡ "Lithology, or Observations on Stone used for Building." C. H. Smith, *Quart. Papers on Architecture* (1845), pt. vii. p. 3.

Resistance to crushing.—The crushing strength of building stones is usually ascertained by subjecting small cubes to direct experiment in a testing apparatus. The results obtained are often very divergent, even from cubes of stone cut from the same block.* To select a few striking instances, we find that in Prudham (sandstone) the crushing strength varies from 393·8 to 517·3, in Corsehill (sandstone) 388·0 to 579·6, in yellow magnesian limestone 383·7 to 703·8, and in Corsham Down (limestone) 70·1 to 128·6 tons per square foot.

From these very different rates of crushing a mean crushing-load has been deduced; but I fail to see on what principle this can be defended. "The strength of a chain is that of its weakest "link," we are told, and the same argument appears to us to apply to building stones. When testing for crushing strength, it is necessary to exercise great care in bedding the stone on the die of the testing machine. The cube must have its faces perfectly parallel, and be evenly and truly bedded, to ensure correct results. The interposition of thin pieces of pine or lead has been shown to seriously affect the results obtained, for under the great strain set up a lateral flow takes place in the soft wood or lead, and the cube of stone is thereby split up, as much by lateral strain as by direct pressure. The loss of strength by the introduction of such plates is shown by Professor Beare to range from 35·5 to 55·3 per cent. It is only necessary to prepare the cube with a very thin layer of plaster of Paris, or other similar material, to secure perfectly even bedding.

On reference to Tables I. and II. (pp. 294–5) it will be seen that most of the ordinary limestones have a crushing strength ranging from 70 to 200 tons per square foot; while most of the sandstones range from 200 to 600 tons per square foot; the Dolomitic stones having an intermediate range of from 300 to 600 tons per square foot. It will be thus apparent that, for all ordinary building purposes, even the weakest stones are more than strong enough to withstand the pressures usually brought to bear upon them, and it is, therefore, only necessary in exceptional cases to use a stone having a high resistance to crushing. Such exceptions, of course, occur where columns, stanchions, or girders have to be carried, or where it is desired to support the superstructure on piers or arches of masonry.

The crushing strength is dismissed in Rivington's notes on building construction with the remark that "This is not a very important test, " . . . but some authorities consider that it affords "an idea of the powers of stone to resist frost." But, surely, without submitting the stone to so expensive an experiment as that of a crushing weight test, it is far more appropriate and accurate to test it by the direct action of frost, produced by natural or artificial means.

Absorption.—The diagrammatic tables I. and II. have been prepared from the figures I have already alluded to, with a view to showing the relationship subsisting between the *rate of absorption* and the *crushing strength.*

To test the absorption the stone should be first carefully dried and weighed, and immersed in water for at least twenty-four hours. At the expiration of that time it should be taken out, the superfluous water blotted off, and the whole weighed and the amount of absorption noted.

In the tables the upper line shows the absorption of water, per cent., of the dry weight of the stone. Comparing the amount of absorption with the crushing strength, we shall notice that as the absorption of water increases, the strength of the stone diminishes, and *vice versâ.* It will be also noticed, in the same connection, that we must compare limestones with limestones and sandstones with sandstones; for a like percentage of absorption in a sandstone and in a limestone does not necessarily indicate that they have the same crushing weight. This can be, perhaps, explained by the fact that in many of the limestones the whole mass of the stone is more or less of an absorbent material, whereas in the sandstones only the matrix and the interspaces between the component particles can absorb water, the quartz or silicious matter of which the grains are formed being non-absorbent. Similarly we notice that the more crystalline forms of limestone, the Dolomitic varieties, for example, have a high crushing strength and a low absorbent rate. The crystalline particles of which the Dolomitic limestones are formed are practically non-absorbent, so that the interspaces alone are capable of retaining much water.

The broad fact can be stated that the ordinary non-crystalline limestones usually absorb over six per cent. of their dry weight of water, and the sandstones under six per cent., and it will also be noted on reference to the tables that, with few exceptions, the rise and fall of the crushing strength is synchronous with the decrease and increase of the absorption of water. I would even suggest, the relationship being so close, that in very few instances need a crushing weight test be instituted, as the absorption test is sufficient to show the crushing strength. As already mentioned, there is a considerable range of variation in the crushing strength in similar stone, and I feel assured that the absorption would in nearly all instances indicate the strength well within this range of variation. It would be advantageous, perhaps, to bear this in mind in selecting untried stones when we wish to employ local material.

An inter-relationship undoubtedly exists in building stones between the absorption of water, the crushing strength, and the action of frost, and it is much to be desired that further experiments should be carried out to establish the connection. Inferences drawn from the amount of absorption are, I think, more to be relied upon for indicating the possible behaviour of the stone under the action of frost than those to be deduced from a study of the crushing strength.

Specific Gravity.—Some writers have contended that stones of a high specific gravity show

* In dealing with this portion of the subject I am using the figures published by Prof. T. Hudson Beare. *Proc. Inst. Civil Eng.* vol. cvii. (1892), p. 341.—H.W.B.

a high resistance to crushing; but as the specific gravity of the stone is almost entirely dependent upon that of its component particles, no such inference can correctly be drawn. If, for example, we imagine a mass of particles of iron or other metal with no cementitious material, it would show an exceedingly high specific gravity; but as its cohesive force would be almost *nil*, its resistance to crushing would be exceedingly low. Similarly with building stones, those composed of minerals of a high specific gravity do not invariably, or as a rule, possess a high crushing strength. To select a few examples, a pure sandstone, such as Craigleith, has a specific gravity for its particles of 2·64, referable to that of silica (2·65); the specific gravity of pure crystalline statuary marble (2·83) approaches that of calcite (2·72), and the nearly pure Dolomitic limestones, like Huddlestone (2·86), closely agrees with that of Dolomite (2·8); yet the ascertained resistances to crushing, as illustrated on tables I. and II., show that while in the silicious rocks the specific gravity is moderately low and the crushing strength is high, some of the limestones with a low crushing strength have a high specific gravity. The following specific gravities* of several well-known building stones will further illustrate this, if compared with the crushing strengths:—

		Specific gravity	
		Dry masses	Particles
Sandstones	Craigleith	2·232	2·646
	Darley Dale	2·628	2·993
	Heddon	2·229	2·643
	Kenton	2·247	2·625
	Mansfield (Red)	2·338	2·756
Magnesian Limestones	Bolsover	2·316	2·833
	Huddlestone	2·147	2·867
	Roche Abbey	2·134	2·840
	Park Nook	2·138	2·847
Oolites	Ancaster	2·182	2·687
	Bath Box	1·839	2·675
	Portland	2·145	2·702
	Ketton	2·045	2·706
Limestones	Barnack	2·090	2·627
	Chilmark	2·481	2·621
	Ham Hill	2·260	2·695

With the same specific gravity very variable resistances to crushing have been recorded. This has been well shown in experiments conducted by Dr. Böhme. The results of some of his researches have been published in this country† and summarised as follows: "Limestones and "sandstones of the same nature and equal specific "gravity give extraordinarily different resistances "to pressure, while the resisting power of specifically lighter sand and limestones is many times "larger than that of similar stones with greater "specific gravities. It is scarcely at all possible, "therefore, to draw a conclusion as to the probable "strength of limestones and sandstones from their "specific gravity. This may be said of all other "building stones, whether of igneous or aqueous "origin."

Brard's Test.—This test consists in subjecting the stone to the action of sulphate of soda (*Glauber's salts*). Small cubes are boiled in a saturated solution of the salt for half an hour. The stone is then dried in the air over the vessel in which it was boiled, so that any disintegrated particles may be caught. This process is repeated for four days, and the amount of stone forced off by the crystallisation of the salt in the pores of the stone is determined.

Originally this test was supposed to imitate the action of frost on stones, but the late C. H. Smith has shown that sulphate of soda does not expand in crystallising, like water when freezing. Hence the action is of quite a different kind, and is one to which the stone would not be subjected by the ordinary processes of nature. I would ask again, as in connection with the crushing strength and its supposed relation to the action of frost, why not submit the stone directly to freezing mixtures if the action of frost is to be estimated?

This test is essentially one requiring a comparative series of experiments to be of the least value. An isolated experiment here and there gives no indication of the relative behaviour of various stones. Such a list has been given of some American building stones.*

Acid test.—This test is quoted in Rivington's *Notes on Building Construction*,† as follows: "Simply soaking a stone for some days in dilute "solutions containing 1 per cent. of sulphuric "acid and of hydrochloric acid will afford a rough "idea as to whether it will stand a town atmosphere. A drop or two of acid on the surface of "the stone will create an intense effervescence if "there is a large proportion present of carbonate "of lime or carbonate of magnesia."

Certainly this is a rough test as it is described, for, so far as I can see, we should reject by this method all the limestones which would readily effervesce with the acid, and many of these are fairly durable, even in a town atmosphere.

The late C. H. Smith's test.—"Break off a few "chippings about the size of a shilling with a "chisel and a smart blow from a hammer; put "them into a glass about one-third full of clear "water; let them remain undisturbed at least half "an hour. The water and specimens together "should then be agitated by giving the glass a "circular motion with the hand. If the stone "be highly crystalline, and the particles well "cemented together, the water will remain clear "and transparent; but if the specimen contain "uncrystallised earthy powder, the water will present a turbid or milky appearance in proportion "to the quantity of loose matter contained in the "stone. The stone should be damp—almost wet "—when the fragments are chipped off." ‡

* *Report of Commissioners* (1839).
† *Building News*, 4th May 1883, p. 606.

* G. P. Merrill, *Stones for Building and Decoration* (1891), p. 388.
† *Op. cit.* (1879), p. 11.
‡ C. H. Smith, *Lithology* (1855), S.P.—R.I.B.A.

Very varying results can be obtained by this test, dependent upon the state of the stone when chipped off, and at best it seems only likely to indicate the characters which we can as easily determine with our naked eye—namely, that the rock is dull and earthy in texture, or partially crystalline and hardened.

Chemical analysis.—The test of all others to which the greatest importance is usually attached is unquestionably that of chemical analysis, and I will therefore devote some considerable attention to the chemical composition of rocks used as building materials.

We constantly see the advertisements of stone merchants and others, with tabulated columns, giving the chemical composition of some particular stone, comparing it with one of the best known and most lasting stones. The point to which most attention is usually directed is the presence of *silica*, as that mineral is almost indestructible, and the inference is that, the higher the proportion of silica, the more durable the stone. If this argument were correct, we should be driven to the conclusion that all sandstones were, with scarcely an exception, better than limestones, or even granites! If we compare the analyses of granites with those of sandstones, we shall find the proportion of silica to be far less, in the former ranging from 59·86 to 75·00 per cent., and in the latter from 87·25 per cent. (as in New Quay stone) to 98·3 per cent. (as in Craigleith).*

If we were to judge by this fact alone, we should come to the entirely erroneous conclusion that granites were far less durable than sandstones. I need not further enlarge upon this point as referring to the granites; their durability is, as a rule, unquestionable. And, moreover, as their use is far more restricted than that of sandstones or limestones, the latter possess more interest to most of us. It will be sufficient to quote the following in connection with the selection of granites from a chemical point of view: "The "principal things to attend to are the condition of "the felspar, the nature of the blotches that so "frequently occur, and the easily decomposable "accessory and secondary minerals, especially iron "oxides. Granites which contain an excess of lime, "iron, or soda, are the most liable to decay. Com- "pact medium-grained varieties are generally good "stones." †

Comparing the analyses (p. 296) of sandstones with those of limestones, we shall invariably find, as would be expected if the origin of the rock were considered for a moment, that the proportion of the nearly indestructible constituent—silica—reached a higher percentage than in the limestones, 8 to 10 per cent. of silica in the latter being seldom found. Chilmark, for example, has 10·4 per cent., and Totternhoe stone 8·5 per cent.; while in many of the best known and most valued limestones, such as the Portland, the proportion of silica does not exceed 1·20 per cent., the bulk of the residue being carbonate of lime.

Comparing analyses of limestones with each other, we shall still find the proportion of silica affords us no guide whatever as to the weathering capabilities of a stone. In the tables of analyses we notice the grey chalk of Folkestone has an insoluble residue of 3·61 per cent., and the bulk of this is silica, while such excellent weather-resisting stones as Barnack, Ancaster, and Ketton have no silica. We thus see that any inference drawn from the presence of silica is not to be relied upon unless supported by something beyond the facts supplied by chemical analysis.

Before we can arrive at any satisfactory conclusion as to the weathering properties of a stone, it is absolutely essential that its state of aggregation should be ascertained, and the necessity for this will be more evident if we consider two theoretical specimens of stone, one a sandstone and the other a limestone, as illustrated in the following figures, leaving out of consideration for the moment any of the minor accessory minerals which we shall hereafter see are usually present.

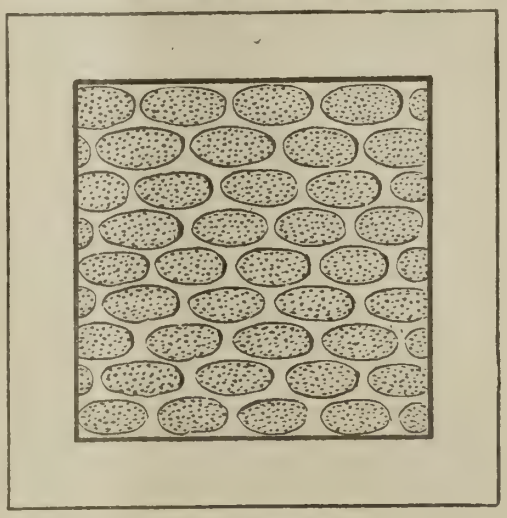

Fig. 1.—Limestone.

We should notice in the limestone each of the granules of carbonate of lime cemented together, wrapped round and protected by an insoluble coating of silica, in such a manner that the deleterious chemical impurities of the atmosphere could not operate upon the soluble carbonate; while in the case of the sandstone, as here assumed, the cementing material, being of carbonate of lime, could be more readily attacked by the carbonic acid gas and other impurities in the air. The grains of silica would then weather out, project, be undermined, and finally fall off; only to expose a fresh layer of carbonate of lime to the destructive agents. Yet in the limestone we should find the silica formed but a small percentage of the whole, while in the sandstone the reverse would be the case, so that, judging from a

* See Tables of Analyses appended at p. 296.

† G. F. Harris, *Granites and Our Granite Industries* (1888), p. 124.

chemical analysis alone, the latter would be regarded as the more durable material, yet, in point of fact, the exact contrary would be the case.

That I have not assumed an impossible case will be shown on reference to the microscopical analyses of some of the chief building stones appended to this Paper, for it will then be seen that a high percentage of silica in limestones is often caused by the presence of scattered grains of sand in the mass of carbonate of lime. In such cases the stone is not the least improved by the addition. The chief point to consider is, therefore, not the amount, but the disposition and arrangement of the silica, and this chemical analysis absolutely fails to show.

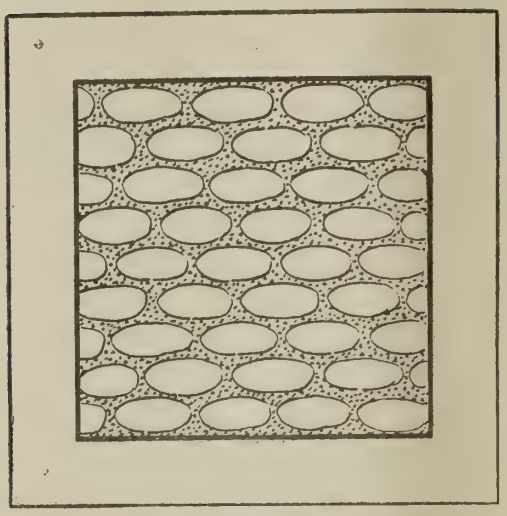

FIG. 2.—SANDSTONE.

There is another very important point in connection with the structure of stone in which chemistry does not aid us. Chemically chalk and the hardest pure limestone and marble may be each composed entirely of carbonate of lime, and there would not be the slightest difference in the chemical reactions for either. Now we know by experience that soft chalk is not to be recommended as a building stone, while many of the hard limestones are exceedingly durable. How, then, does it happen that some forms of carbonate of lime rapidly fail under atmospheric influences, while other forms more successfully resist them?

The explanation is to be found in the different condition under which the minerals occur. In the chalk, for example, the carbonate of lime is amorphous, that is to say, without any crystalline character, while in many limestones the structure is semi-crystalline, and in many marbles wholly so.

That a crystalline condition offers more resistance to the weathering properties of the atmosphere can be very clearly shown by the following observations. If we examine a piece of limestone which has been standing for many years, we shall find the portions of shell matter contained therein standing forward more or less prominently, while the ground mass, or matrix, has weathered away at a more rapid rate. The writer noticed at the old Revenue Offices on Tower Hill (now pulled down), erected in 1809, that this difference in the rate of weathering in Portland Base bed stone is barely one-fourth of an inch in eighty-three years. We cannot, of course, by this method estimate the total amount of weathering, as both the crystalline and non-crystalline portions have been affected, the latter, however, more than the former. There is a striking example of this difference in the rate of weathering of crystalline and non-crystalline material at Boxgrove Priory, which the writer noted in 1888. The caps of the arcade to the Chapter House are in marine limestone (Caen probably), and large specimens of *echinoidea* project an inch or more, the amorphous material having yielded. In such cases we have an accurate means of measuring the rate of difference in decay, as the *echinoidea* have very thin tests, and any small decay would be easily discernible. In this case they are nearly perfect, so that their decay, in, say 700 years, has been practically *nil*.

To this difference in the rate of weathering we owe the observation of many fossiliferous organisms in hard rocks, as they often stand prominently forward, whereas in a freshly-broken surface of the same rock but little is discernible.

It is, therefore, clear that a crystalline body resists the action of atmospheric agencies much more effectually than those which are non-crystalline, although of precisely the same chemical composition. There are, however, differences in the crystalline state of the same chemical compound, as exemplified by *calcite* and *aragonite*. Chemically these minerals are identical; but they differ from each other in structure and crystalline form; the former being rhombohedral, or a derivative from it; while the latter is derived from a right rhombic prism. Although harder and heavier than calcite, aragonite is much less stable than the former.

Calcite is of frequent occurrence in building stones, particularly in those limestones which are formed of the *débris* of shells, most of the tests of the mollusca being composed of it. Where the shells are formed of aragonite the resulting limestone would be of a less durable nature.

We thus see that chemical analysis affords us but little assistance in determining the value of building stones for weather-resisting purposes; it simply shows us that certain definite chemical compounds enter into the composition of the stone, with no indication of their method of arrangement, or the state of aggregation. If we were to take one of the hardest and best sandstones, Craigleith for example, and were to pound it up to impalpable powder, its chemical composition would remain the same; the sand on the sea-shore judged by its chemical analysis alone would give us an excellent building stone! Clearly then it becomes necessary to supplement chemical analysis, in dealing with building stones, with

some statement as to the cohesion of the rock, to enable us to judge of its resistance to crushing, and we therefore usually find a chemical analysis and a table of the crushing strength appended to the description of the stone.

Microscopical analysis.—The principal methods generally adopted in this country for the examination of building stones have now been discussed, and we have seen that the two most relied upon—namely, crushing strength and chemical analysis—are by no means satisfactory. The latter is often worse than useless, as it is misleading and deceptive, and the former is only of value in comparatively rare instances.

To ascertain the capacity for resistance to weathering, it is far more important to understand the manner in which the component grains of the stone are bound together, than to discover the composition of either the grains in detail, or of the rock as a whole, as we have already indicated (figs. 1 and 2). The nature of the cementing material and its disposition around the particles of which the rock is formed, or the state in which the crystals or grains of the rock occur, should be the chief objects of our inquiry, for, as a rule, it is to this, far more than to the chemical composition, that the rock owes its strength and durability; to ascertain this we must resort to a microscopical investigation.

For this purpose portions of the stone are fixed to glass slides by Canada balsam, and are then ground down till they are transparent.*

This method of investigation was first used for rock sections by Dr. H. C. Sorby in 1856, so that it was unknown to the Royal Commissioners who, in 1839, inquired into the question of selection of stone for the new Houses of Parliament; if it had been known, I venture to think it would have been used in preference to the chemical and physical methods adopted, not absolutely supplanting them, but very considerably enhancing their value.

With a transparent section of the stone, ordinary transmitted light is sufficient to show the structure of the material, and the disposition of the component particles and matrix, such as we see illustrated in the Plates appended.

But a far more delicate investigation is also possible by the use of a *polariscope*, the action of which I will briefly explain. If we pass rays of light through a singly refracting mineral, such as glass, under the polariscope they are apparently unaffected. Bodies which act in this manner are said to be *isotropic*; on the other hand, doubly refracting minerals affect the polarised rays of light, and such bodies are said to be *anisotropic*.†

Not only is this so, but the polarised rays of light are affected by different minerals in a characteristic and peculiar manner, so that it has been possible to draw up tables indicating the characteristic behaviour of most rock-forming minerals.* *Quartz*, for example, shows a "characteristic brilliant chromatic polarisation, while "calcedony displays a minute concentric radial "structure."† *Calcite* again, a very common constituent of building stones, shows "characteristic "iridescent tints of grey, rose and blue."‡ We have thus a means of detecting the differences in structure, even in minerals which, like quartz and calcedony, are chemically identical. Further, the alteration produced upon the component minerals by weathering or decay, can be detected.§

The Plates appended have been prepared from sections specially cut and photographed to illustrate this Paper, and I will now proceed to describe them in detail.‖

Granites.—I must refer to my previous remarks on the origin of granite for a fuller explanation of the main characteristics of this class of stone. I here refer to the details of selected specimens.

Carnsew (Plate I. fig. 1).—The section is cut from this Cornish granite, a bluish-grey, fine-grained stone, composed of quartz, felspar, and mica—the latter in two varieties, black and white. The felspar, as will be noticed on reference to the figure, is not developed in distinct crystals, as in some of the Cornish granites—notably that from Dartmoor, with its large crystals of orthoclase felspar.

Rubislaw (Plate I. fig. 2).—This is a fine-grained mauve-blue coloured granite. The white felspar under the microscope is seen to show the characteristic "twinning" of oligoclase felspar, and the quartz is transparent, white, and with lines of blebs and cavities. Mica of a black variety is present in fair quantity.

Correnie (Plate I. fig. 3).—A very bright salmon-coloured granite, composed principally of quartz and salmon-coloured felspar; occasionally microliths of other minerals can be detected, possibly hornblende or black mica, together with magnetite. The white quartz shows the characteristic strings and cavities.

Mountsorrel (Plate I. fig. 4).—Although not much used for constructive purposes, this "hornblendic granite" is largely employed for road-making and setts. It is here introduced to show the difference in the rocks which are commercially classed as "granites." The principal addition to the three ordinary constituents is hornblende, showing crystalline, irregularly defined, bright green masses under the microscope, together with magnetite, apatite, and iron pyrites occasionally.

The stone is compact, medium-grained, and varies in colour from a deep red to a grey.

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* For detailed description of the operation, consult Geikie, *Text Book of Geol.* (1882), p. 182.

† Geikie, *op. cit.* p. 188.

* *Petrographical Tables.* Prof. H. Rosenbusch and Dr. F. H. Hatch.

† Geikie, *op. cit.* p. 66.

‡ Geikie, *op. cit.* p. 82.

§ For further details consult Geikie, *op. cit.* pp. 66–82, and *Builder*, 8 May 1886, pp. 694 *et sqq.*

‖ I must here beg to thank my friend Mr. A. E. Lardeur for his very generous and kindly help in this difficult branch of photography.—H. W. B.

Sandstones.—As I have pointed out in dealing with the origin of sandstones, the grains of silica or quartz may be cemented together by an argillaceous, micaceous, calcareous, felspathic, or other cement, or they may be simply compacted by mere pressure. This can only be properly determined by a microscopic examination, and is a particularly good illustration of the value of this method of research. If the grains were entirely silicious and simply coherent, the resulting chemical analysis would show a high percentage of silica. If the grains were held together by a silicious cement, the resulting rock would be very far superior, although the chemical analysis would be identical.

Corsehill (Plate I. fig. 5).—This is an exceedingly fine-grained, and compact, rich red, micaceous sandstone; with grains not usually more than $\frac{1}{250}$ of an inch in size.

Under the polariscope it is found that nearly half the rock is composed of angular quartz grains, many of which have been added to by a "secondary growth" of quartz deposited from the matrix. A considerable portion of the latter is impure quartz and flint, enveloping the grains of quartz. Flakes of mica can also be noted, chiefly in the bedding planes.

Red Mansfield (Plate I. fig. 6).—A compact, exceedingly fine-grained sandstone, or silicious Dolomite, of a deep pinkish-red colour.

Under the microscope it is found to be largely composed of angular and sub-rounded grains of quartz, bound together with interspersed strings of silica. The boundaries of the quartz grains are ferruginous, mica in flakes being sparingly distributed. The matrix is partially dolomitic.

Mansfield Woodhouse (Plate II. fig. 7).—As an example of a true dolomitic limestone this may be noticed. It very closely resembles the stone from Bolsover Moor. The grains are exceedingly fine and compact, crystalline particles of Dolomite, average $\frac{1}{250}$ of an inch. The colour is yellow.

Under the polariscope the boundaries of the dolomitic crystals are clearly defined, partly rhomboidal, and in part coalescing with each other. Some minute grains of silicious matter are to be noted between the crystals.*

Limestones.—We have seen that the limestones may be of very varying structure, amorphous, semi-crystalline or crystalline, oolitic, or shelly, with the granules or particles loosely adherent or closely compacted, or cemented together by a silicious, calcareous, or other matrix, and that although the chemical analysis for all is very closely analogous, the resulting rocks are consequently very widely different. It may be necessary to distinguish between the species of carbonate of lime, already referred to, calcite and aragonite, the former being a far more durable mineral, as has been said. In each of these particulars the microscope alone can accurately determine our difficulties. Let us select a few examples as illustrating this.

Sicilian Marble (Plate II. fig. 8).—This is a crystalline granular limestone, composed of grains of calcite, and from the resemblance to loaf-sugar often called *saccharoid*. The section is cut from an ordinary "veined Sicilian," and the granules of calcite can be readily distinguished by the characteristic lines of "cleavage" so distinctive of this mineral. In this case the granules average $\frac{1}{100}$ to $\frac{1}{125}$ of an inch.

Hopton Wood (Plate II. fig. 9).—A grey, compact limestone, sufficiently hard to take a polish. Under the microscope it is shown to be composed almost entirely of calcite in a more or less crystalline condition, granular in part, and exhibiting the characteristic "cleavage" before referred to. A considerable part of the calcite is of organic origin, more or less cellular in structure, and not so clearly showing "cleavage." Occasionally a little secondary quartz is present, wrapping the boundaries of the calcite grains.

Ham Hill (Plate II. fig. 10).—A shelly, granular, orange-brown limestone, very variable in structure, even within the limits of a microscopical slide, composed of fragments of shells, with grains of calcite and quartz, the latter partially infiltered between the shelly particles, but capriciously distributed.

Ancaster (*Weather-Bed*) (Plate II. fig. 11).—A compact, somewhat variable, but generally fine-grained stone, average of the grains $\frac{1}{60}$ of an inch, colour cream tint. The oolitic granules are somewhat scattered, and are not all spherical, some having been formed round long particles of shell matter. The matrix is composed of clear, non-granular calcite, showing the "cleavage," with occasional particles of shelly *débris* and strings of calcite. *Foraminifera* are also rarely present.

Doulting (*Chelynch-Bed*) (Plate II. fig. 12).—Chiefly composed of closely-compacted irregular-shaped fragments of crystalline calcite, more or less weathered in a peculiar manner. A few oolitic granules of somewhat obscure structure are present, but the concentric, ring-like character is poorly developed. There are scattered grains of quartz, and a little infiltered silicious matter can be detected in parts of the stone.

Portland (*Base-Bed*) (Plate III. fig. 13).—Very fine-grained oolite, few of the grains exceeding $\frac{1}{100}$ of an inch in diameter, and many are even less. Colour usually nearly white. This stone is very similar in appearance to the *Whit-Bed*, but the grains are a little more scattered, and the cementing material is not as crystalline, but of a more amorphous character, although to a considerable extent of calcite. A few scattered grains of quartz explain the presence of silica in the chemical analysis. They do not contribute to the weather-resisting properties of the stone in the smallest degree apparently. The stone is softer and contains less shell matter than the *Whit-Bed*.

Portland (*Whit-Bed*) (Plate III. fig. 14).—Very similar indeed to the *Base-Bed* previously described, both in colour and size of granule. The chief point of difference is that the cementing material is slightly more silicious in part. There are a few scattered grains of sand, as in the *Base-*

* See *ante*, p. 286.

Bed, which do not strengthen the stone. There are also many particles of shell *débris*. *Foraminifera* are sparingly developed.

Bath (*Monk's Park*) (Plate III. fig. 15).—Rather variable in the size of the oolitic spherules, some of the largest reaching $\frac{1}{15}$ of an inch in their longest dimensions; but they are generally much smaller—from $\frac{1}{50}$ down to $\frac{1}{100}$ of an inch in diameter. Colour, pale cream or buff. The grains are often sub-angular or oblong, having been deposited around long pieces of shell. The spherules, which do not touch, are bound together almost entirely by a crystalline-granular calcitic matrix.

Bath (*Westwood Ground*) (Plate III. fig. 16).—Oolitic, with the granules of variable size, showing about the same range of variation as in *Monk's Park*, but the larger ones predominate. They are widely separated, and the matrix is slightly more porous and open than in *Monk's Park*, but it is composed of crystalline calcite, with many fragments of shells and other calcareous detritus. The nuclei of the oolitic granules are variable, shelly, very rarely sandy or foraminiferal. Colour, pale cream.

Weldon (Bed A[1]) (Plate III. fig. 17).—Oolitic granules of carbonate of lime of moderate size up to $\frac{1}{50}$ of an inch, while others are not more than $\frac{1}{100}$ of an inch, in diameter. The spherules are regularly dispersed, and the concentric structure is clearly defined. Colour, very light brown. There appears to be little matrix, the grains adhering and the outer rings of the granules interpenetrating, interlaced with strings of calcite and portions of shells. Foraminiferal nuclei can occasionally be detected.

Ketton (Plate III. fig. 18).—Oolitic granules of carbonate of lime of moderate size, generally about $\frac{1}{50}$ of an inch, and of regularly circular outline, with the concentric structure well defined. The spherules adhere one to the other, and occasionally interpenetrate. They are partially crystalline, especially on their boundaries, and in this respect they nearly approach the aspect of the granules in *Weldon* stone. At times the spherules are noticed as having formed round a piece of shell, but there is no matrix—hardly anything in addition to the oolitic grains.

It will be evident, I think, from the arguments already adduced, that the principal object of our investigation in the study of building-stones should be that of structure. Microscopical analysis is unquestionably the only satisfactory process by which this can be accurately understood and its value appreciated. Chemical analysis may in some instances form a valuable adjunct to the microscopical examination; but, as we have seen, far too much reliance may be placed upon it. The state of aggregation of the particles of which a rock or building-stone is formed, and the particular condition in which they occur, are of the highest possible importance, seeing that chemical compounds of absolute identity may and do assume varied mineralogical forms, each of which offers a varying resistance to climatic influences.

It should also be borne in mind that if we correctly appreciate the structure we may also infer the resistance to crushing, as we can detect the manner in which the component particles are arranged, and note the different ways in which they adhere or are cemented together.

We can almost determine the chemical analysis by microscopical investigation, as the various mineral elements have each their characteristic reaction under the polariscope, just as they have their chemical reaction with chemical reagents. By a comparatively simple process of calculation we can estimate the varying proportion of minerals, and from it work out the chemical composition with a close approximation to accuracy.

H. W. Burrows.*

Explanation of Tables I. and II.

These tables have been prepared from Prof. Beare's figures to illustrate the relation between crushing strength and absorption of water. The upper line shows the *maximum* amount of water absorbed per cent. of the dry weight of the stone; the lower line the *minimum* crushing strength. A closer approximation could be shown in some cases if a selection had been made from the varying crushing strengths. The stones are numbered as follows:—

Limestones.

1. Ancaster, Brown Weather-Bed.
2. Portland, Base-Bed.
3. Portland, Base-Bed.
4. Portland, White-Bed.
5. Ketton.
6. Corsham Down.
7. Farleigh Down.
8. Monk's Park.
9. Box Ground.
10. Coombe Down.
11. Corngrit.
12. Stoke Ground.
13. Winsley Ground.
14. Westwood Ground.
15. Doulting, Fine Beds.
16. Doulting, Chelynch-Bed.
17. Ham Hill.
18. Ancaster Freestone.

Dolomites.

19. White Mansfield.
20. Red Mansfield.
21. Yellow Magnesian Limestone (Mansfield-Woodhouse).
22. Anston (Kiveton Park).

Sandstones.

23. Prudham.
24. Corncockle.
25. Gunnerton.
26. Cragg.
27. Corsehill.
28. Polmaise.
29. White Plean.
30. Arbroath.
31. Auchinlea.
32. Craigleith.
33. White Hailes.
34. Dean Forest.
35. Gatelawbridge.
36. Blue Hailes.
37. Binnie.
38. Hermand.
39. Howley Park.
40. White Grinshill.
41. Darley Top.
42. Hercules Ridge.
43. Bramley Fall.
44. Ackworth.
45. Robin Hood.
46. Aspatria.

* My friend Mr. G. F. Harris, F.G.S., has rendered me very valuable assistance in the preparation of this Paper, and in the correction of proofs. I have also especially to thank him for his co-operation in the examination of sections under the microscope, for the loan of many papers, and for the specimens of oolitic sand from Pyramid Lake, Nevada.—H. W. B.

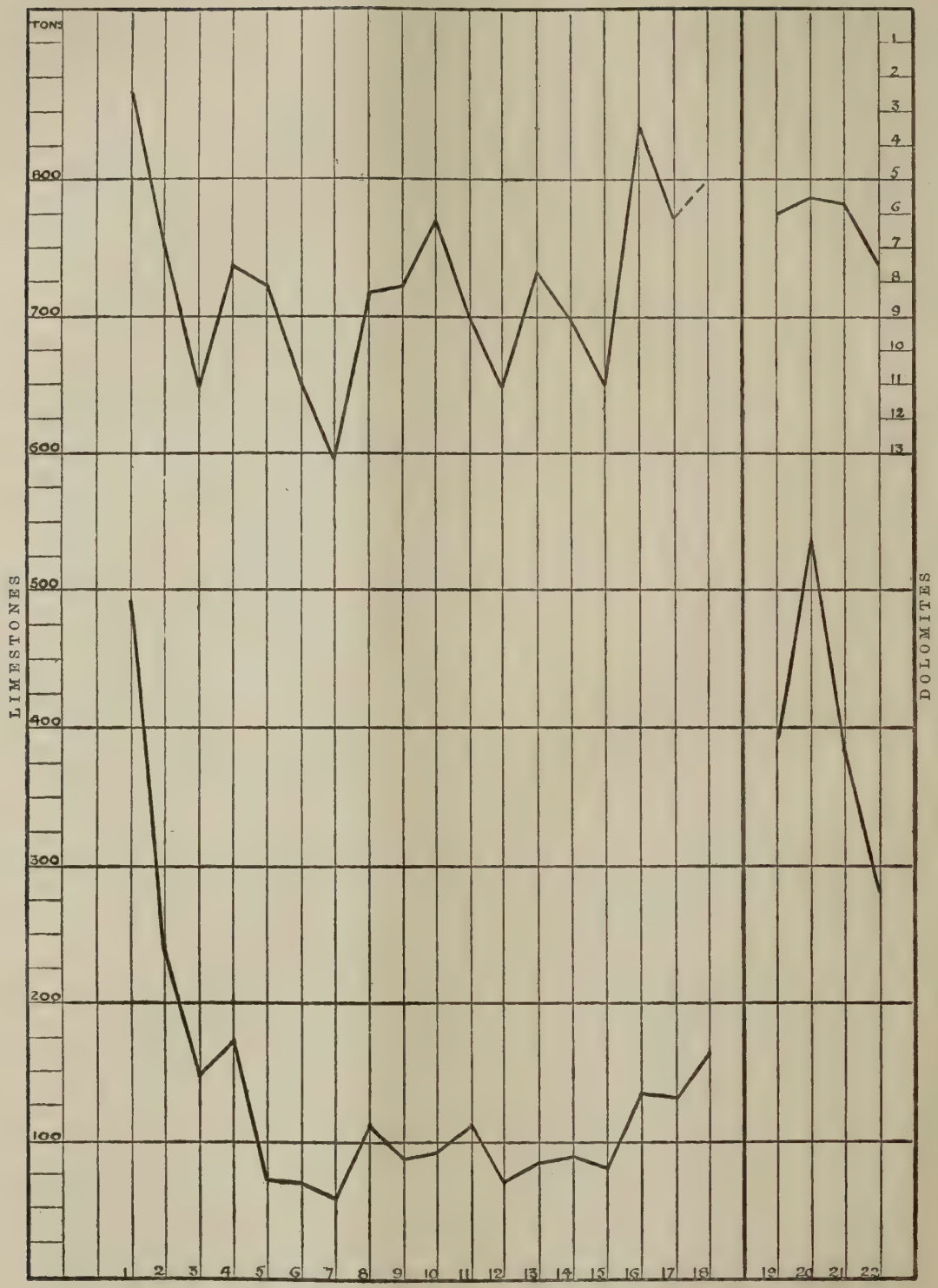


TABLE I.—LIMESTONES AND DOLOMITES; RELATION OF ABSORPTION TO CRUSHING.

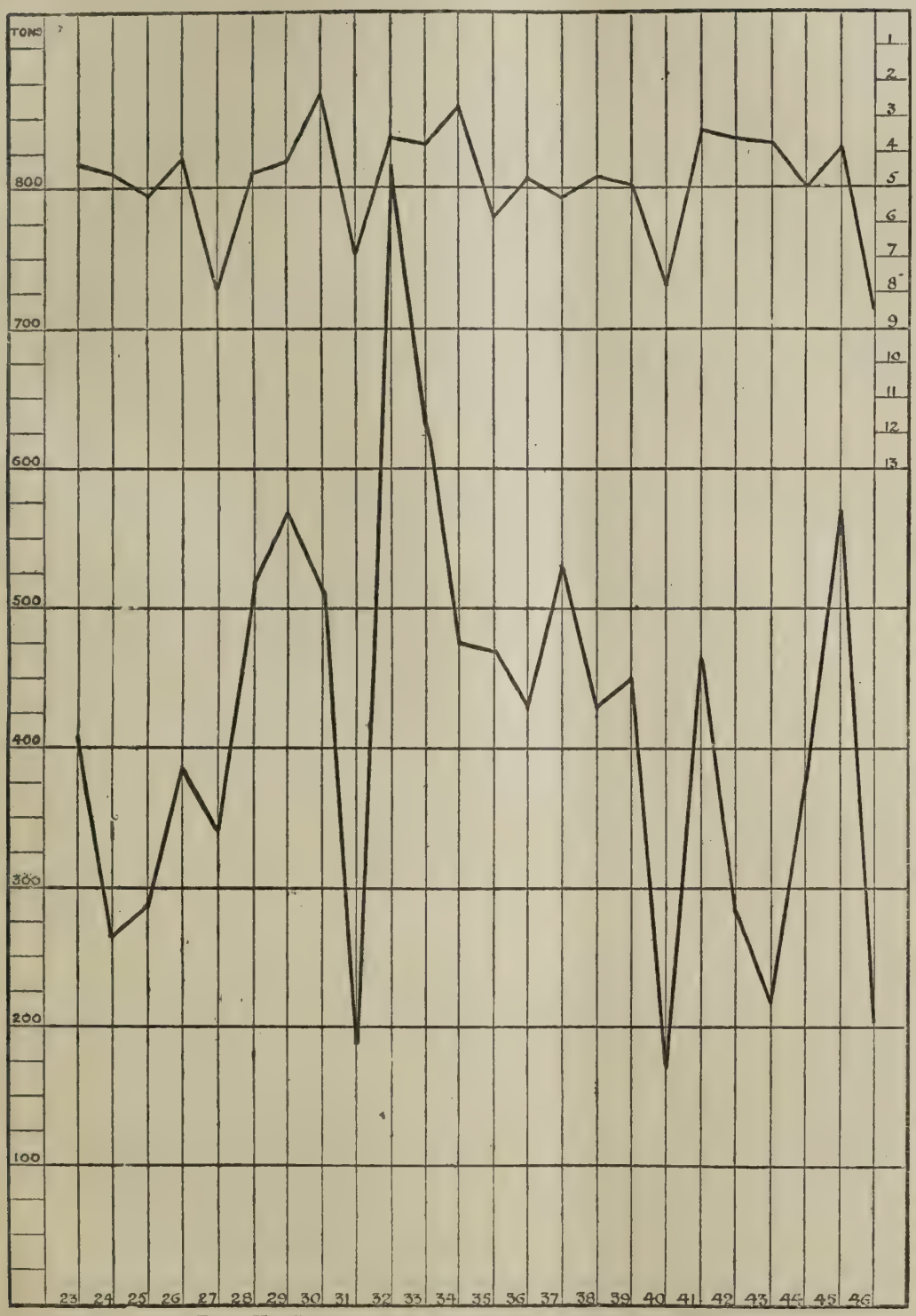


TABLE II.—SANDSTONES: RELATION OF ABSORPTION TO CRUSHING.

TABLES OF CHEMICAL ANALYSES OF VARIOUS STONES.

I. Granites and Granitic Rocks.

	1 Gunnislake Grey Granite	2 Shap Fell	3 Bardon Hill	4 Mourne (Irish)	5 Doocharry Bridge, Donegal	6 Average of Granites
Silica	70·95	68·55	59·86	75·00	72·24	72·8
Alumina	17·64	16·21	16·00	13·24	14·92	15·3
Iron	1·36	2·26	(4·47) (3·64)	2·52	1·86	1·7
Lime	0·76	2·40	8·06	0·69	1·68	0·7
Magnesia	0·11	1·04	3·90	—	0·36	0·9
Potash	4·36	4·14	1·20	4·33	5·10	6·4
Soda	3·79	4·08	2·60	3·07	3·51	1·4
Carbonic acid	none	—	—	—	—	—
Water	0·67	not estimated	—	0·80	—	—
Manganese	—	0·45	—	—	0·32	—
Loss	—	—	—	—	—	0·8
	99·64	99·13	99·73	99·65	99·99	100·0

1. G. F. Harris, *Granite and our Granite Industries* (1888), p. 40. 2. *Quart. Journ. Geol. Soc.* vol. xlvii. (1891), p. 276.
3. *Ibid.*, p. 89. 4, 5. Ed. Hull, *Building and Ornamental Stones* (1872), p. 28.
6. D. T. Ansted, *Application of Geol. to Arts, &c.* (1865), p. 141.

III. Magnesian Limestones.*

	Norfal, Upper Bed	Steetley, Upper, or Yellow Bed	Kiveton Park, Pennyholme	Bolsover Moor	Steetley, Lower, or White Bed	Kiveton Park, Red Hill
Silica and Oxide of Iron	2·0	1·15	2·00	2·57	2·60	4·56
Carbonate of Magnesia	45·2	44·30	43·84	43·83	42·96	42·50
Carbonate of Lime	52·0	52·80	52·78	52·17	51·14	51·42
Moisture and Loss	0·8	1·75	1·38	1·43	3·30	1·52
	100·00	100·00	100·00	100·00	100·00	100·00

* By R. Phillips, in C. H. Smith, "Lithology, or "Observations on Stone used for Building," *Quart. Papers on Architecture* (1845), pt. vii. p. 23.

II. Sandstones.

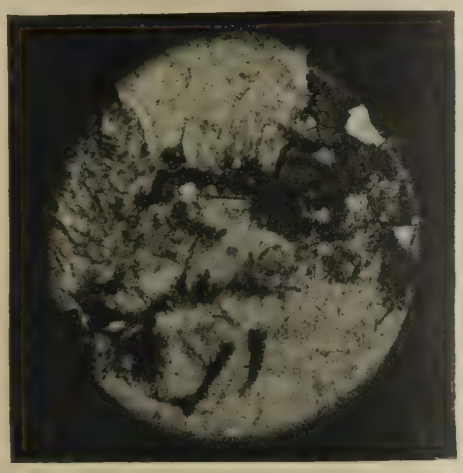
	1 Red Mansfield	2 Red Corsehill	3 Quarella	4 Craigleith	5 New Quay	6 Grinshill	7 Darley Dale	8 Heddon	9 Kenton	10 Spinkwell
Silica	49·4	95·24	91·20	98·3	87·25	95·46	96·40	95·1	93·1	88·5
Alumina	3·2	0·56	3·35	0·6	9·70	1·17	1·30	2·3	4·4	7·5
Iron		1·28	0·58		0·77	0·87				2·5
Lime	26·5	1·40	1·23	1·1	0·33	0·61	0·36	0·8	2·0	—
Magnesia	16·1	1·23	0·25	0·0	0·50	0·69	—	—	—	0·5
Water	4·8	0·56	2·57	—	—	1·68	1·94	1·8	0·5	0·5
Loss			0·82		1·54					
Alkalies	—	—	traces	—	traces	—	—	—	—	—
Potash	—	—	—	—	—	—	—	—	—	0·5
	100·0	100·27	100·0	100·0	100·09	100·48	100·00	100·0	100·0	100·0

1, 4, 7, 8, 9. *Commissioner's Report* (1839). 2, 3, 5, 6, 10. *Trade Lists.* Various authorities.

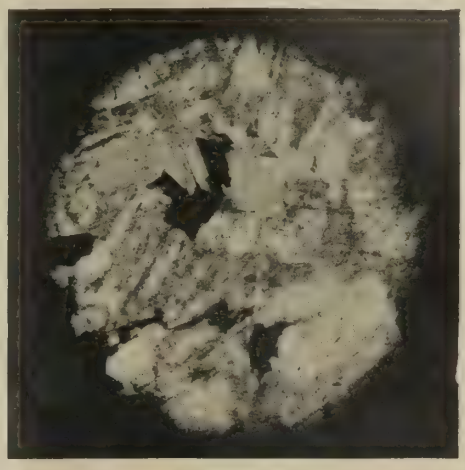
IV. Limestones.

	1 Ham Hill	2 Ancaster	3 Doulting	4 Chilmark	5 Portland	6 Bath Box	7 Bath Monks Park	8 Weldon	9 Ketton	10 Barnack	11 Grey Chalk Folkestone	12 Totternhoe Stone (Burwell)
Silica	4·7	0·0	2·04	10·4	1·20	0·0	1·0	0·08	0·0	0·0	3·61	8·50
Carbonate of Lime	79·3	93·59	95·89	79·0	95·16	94·52	97·2	94·35	92·17	93·4	94·09	85·91
Carbonate of Magnesia	5·2	2·90	0·11	3·7	1·20	2·50	0·2	3·55	4·10	3·8	0·31	trace
Iron	8·3	0·80	0·85	2·0	0·50	1·20	1·6	0·61	0·90	1·3	—	1·87
Alumina			0·79					0·28			traces	0·85
Water	2·5	2·71	0·32	4·2	1·94	1·78	—	—	2·83	1·5	0·70	0·66
Loss			—					1·13			—	—
Bitumen	trace	trace	—	trace	trace	trace	—	—	trace	trace	—	—
Chloride of Sodium	—	—	—	—	—	—	—	—	—	—	1·29	—
Phosphoric Acid	—	—	—	—	—	—	—	—	—	—	trace	—
Organic matter	—	—	—	—	—	—	—	traces	—	—	—	0·44
Manganese	—	—	—	—	—	—	—	traces	—	—	—	—
Lime and Magnesia (in the insoluble residue)	—	—	—	—	—	—	—	—	—	—	—	0·57
	100·0	100·00	100·00	99·3	100·00	100·00	100·0	100·00	100·00	100·0	100·00	98·80

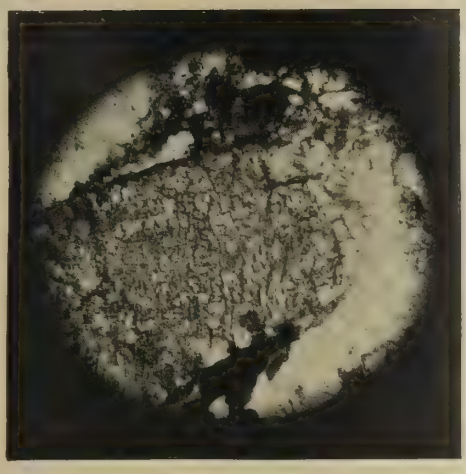
1, 2, 4, 5, 6, 9, 10. *Commissioner's Report* (1839). 3. *Trade Lists.*
7, 8. Prof. Attfield in *Trade Lists.* 11. *Quart. Journ. Geol. Soc.* vol. xxvii. p. xlix.
12. *Mem. Geol. Surv. The Geol. of the Neighbourhood of Cambridge* (1881), p. 43.



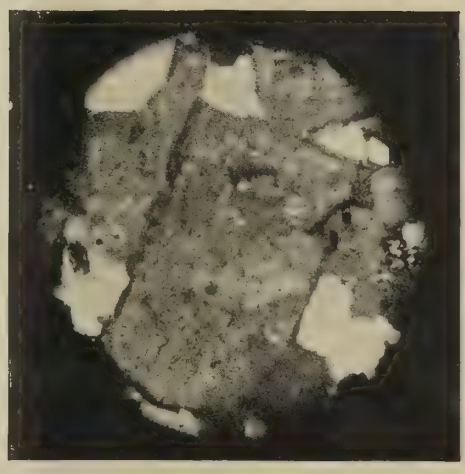
1. CARNSEW



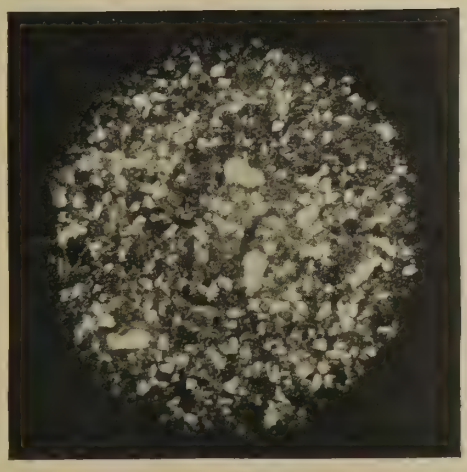
2. RUBISLAW



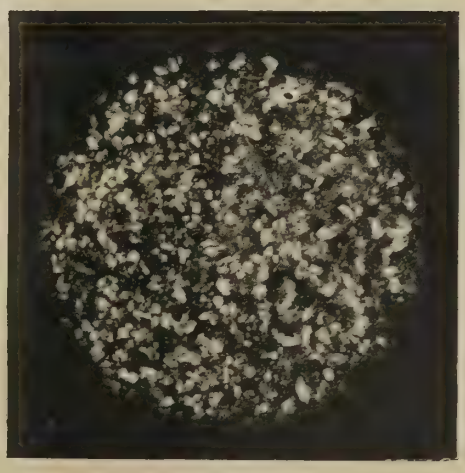
3. CORRENNIE



4. MOUNTSORREL



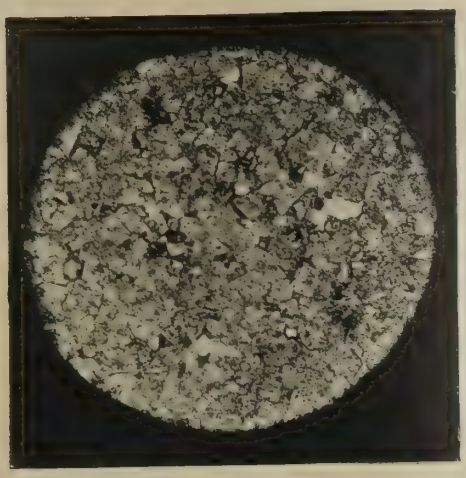
5. CORSEHILL



6. RED MANSFIELD

NEGATIVES BY A. E. LARDEUR.

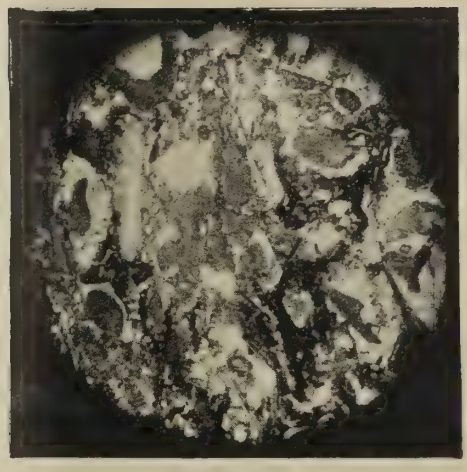
PLATE I.—MICRO-STRUCTURE OF BUILDING STONES



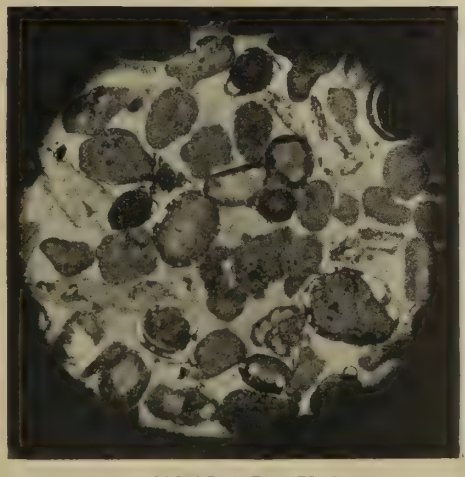
7. MANSFIELD WOODHOUSE

8. SICILIAN MARBLE

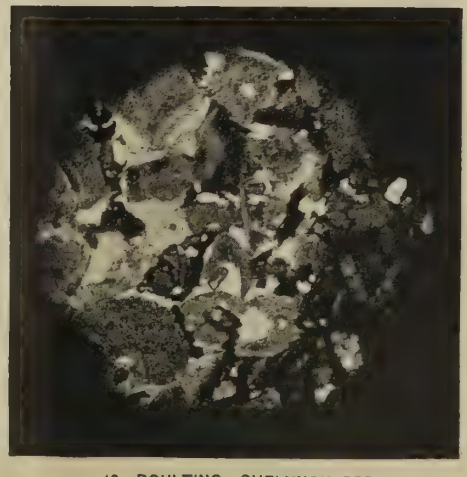
9. HOPTON WOOD



10. HAM HILL



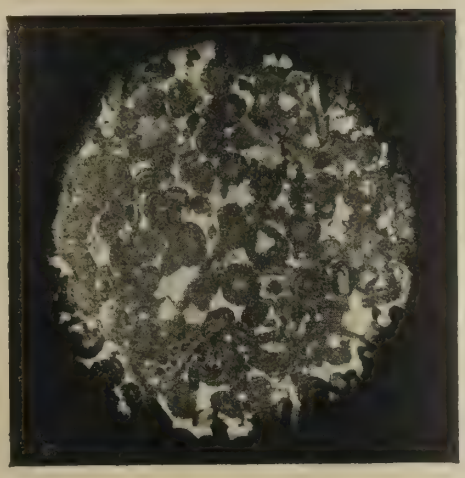
11. ANCASTER. WEATHER-BED



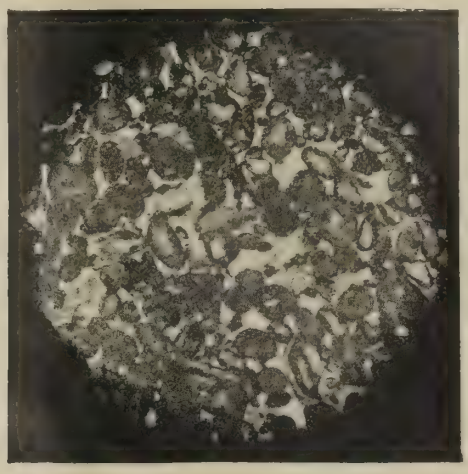
12 DOULTING. CHELYNCH-BED

NEGATIVES BY A. E. LARDEUR.

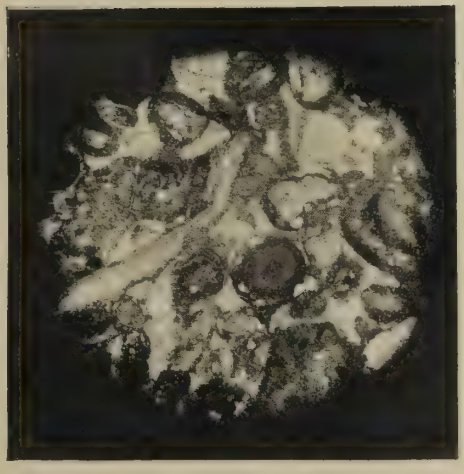
PLATE II.—MICRO-STRUCTURE OF BUILDING STONES



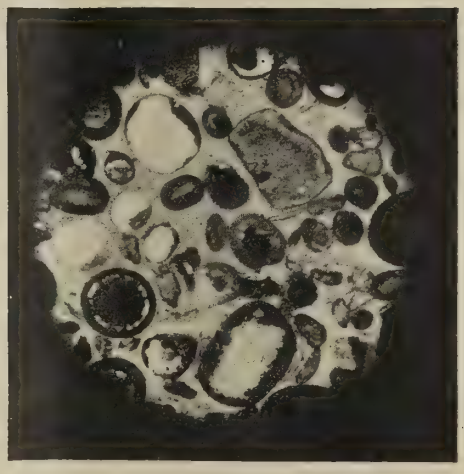
13. PORTLAND. BASE-BED



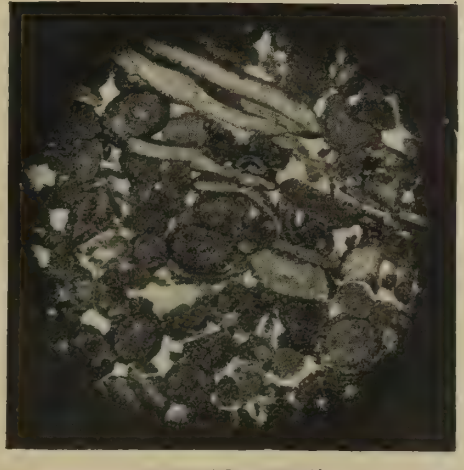
14. PORTLAND. WHIT-BED



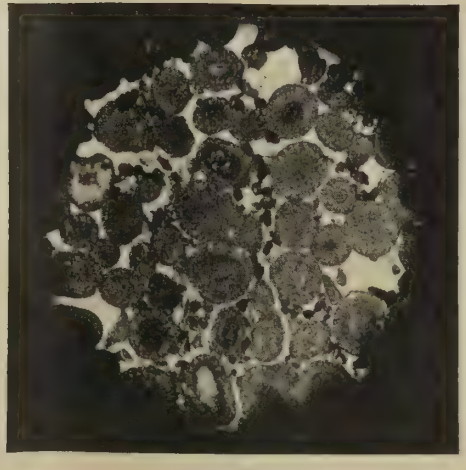
15. BATH. MONK'S PARK



16. BATH. WESTWOOD GROUND



17. WELDON. BED A^1



18. KETTON

NEGATIVES BY A. E. LARDEUR.

PLATE III.—MICRO-STRUCTURE OF BUILDING STONES

Explanation of Plates I., II., III.

The figures are photographed as seen under the microscope by ordinary transmitted light, and are each magnified 16 diameters; with the exception of Plate 2, fig. 7 (Mansfield-Woodhouse), which is magnified 32 diameters. The sandstones and limestones are cut at right angles to the plane of bedding. For description, see pp. 291 *et sqq.*

Discussion.

Mr. P. GORDON SMITH [*F.*].—Mr. Vice-President and Gentlemen, in the absence of Mr. Angell I have been asked to say a few words upon Mr. Burrows's Paper. The recent discussion on the relative advantages of building stones and terra cotta has brought the subject very prominently before us, and I think that the absence of sufficient knowledge as to the best qualities of building stones has led rather to the abandonment, in many cases, of the use of stone in favour of terra cotta. I was brought up a good deal in the midst of masonry, and when I look at the workmanship which is displayed in terra cotta, I cannot but think that the mason must be very dissatisfied with the character of the work, quite apart from any question of ornament and colour. I look forward to a return to the use of stone, by which we may insure durability.

Mr. F. W. RUDLER, F.G.S.—Mr. Chairman and Gentlemen, speaking from the point of view of a geologist, I may be permitted perhaps to express my satisfaction that a method of microscopic examination of rocks, introduced originally for purely scientific purposes, should turn out to be a servant of no little value to the architect. There can be no manner of doubt that an examination of a thin slice of rock by transmitted light under high magnifying power affords an insight into the minute structure of that rock which is utterly unobtainable by any other method; and I think Mr. Burrows has shown most admirably to-night how this question of structure and the way in which the mineral components of the rock may be aggregated is a question of paramount moment in the examination of constructive materials. However, few of our building stones have, I suppose, been examined with any approach to exhaustiveness; and I think we should all feel deeply obligated to Mr. Burrows, if he would consent to undertake an investigation of the principal stones that come into the market, and schedule side by side the results obtained from chemical, from mechanical, and from optical examinations. In many cases, I suppose, we have still, with reference to the examination of a stone, to fall back upon the result obtained by the Commissioners in their famous report so often referred to this evening. But then something like fifty years have slipped by since it was issued, and surely within that period our knowledge must have considerably extended. Then, again, the Commissioners at that time were for the most part geologists rather than physicists or chemists, and the examination to which they subjected the stones selected can hardly be called exhaustive. At any rate, it was not given to them to throw upon this question with regard to building stones the powerful search-light of the microscope. You will remember, Sir, that with Sir Charles Barry, as architect, were associated Sir Henry De la Beche, the founder of our Geological Survey, William Smith, the great pioneer of geology, and C. H. Smith as a practical mason. The specimens selected by them were sent to Mr. Smith's yard, and dressed up into six-inch cubes; those cubes are now, and have been for many years, under my custody in the Museum of Practical Geology in Jermyn Street. After the meeting of the British Association at Newcastle in 1838, the Commissioners purchased an old carriage, and rode across the country for three months, visiting the principal quarries, and selecting their samples, under William Smith's guidance. These samples formed the nucleus of our collection at Jermyn Street, and we have now upwards of 500 samples of British stone, uniformly cut into six-inch cubes. But that collection, although I believe the best in existence, is very very far from perfect, and I look forward to the kind assistance of Mr. Burrows, and of my friend Mr. George Harris, in making it complete. Our building in Jermyn Street was constructed of dolomite recommended by the Commissioners, and perhaps one cannot say that one is perfectly satisfied with its condition at the present time. The truth is that the church at Anston, which was cited by some of the Commissioners as an example of the capital weathering power of this stone (the tower having stood since the fifteenth century), was subjected to conditions very different from our building in Jermyn Street, or the Houses of Parliament. If, as we are told, there are something like 200 tons of sulphur burnt every winter's day in London, the result is that our building in Jermyn Street is being drenched with diluted acid, and consequently the conditions with regard to that building are totally different from the conditions which exist in a little village or hamlet in Yorkshire. But I cannot help thinking that the smoke of London is a protection to our building, and that this deluge of acid does not affect the stone in a manner which at first sight one might suppose it would. Mr. Burrows has shown us that chemical analyses, even of a most exact character, are open to grave misinterpretation; and with his conclusions I perfectly agree. At the same time I think that chemical analysis and microscopical analysis should always go hand in hand together.

Mr. HENRY DAWSON [*F.*].—Mr. Chairman and Gentlemen, as a member of the Science Committee, I have taken great interest in the matter of stone. I consider that a chemical analysis of stones is just as valuable as a microscopical analysis; and it is necessary that the two should be taken together. When Mr. Burrows states that in stones where the silica is greater in proportion to the carbonate of lime, or sometimes of magnesia, it does not therefore follow that they are stronger, I somewhat differ from him; for I think it will be found generally (I do

not say in all cases) that where the proportion of silica to the carbonate of lime or magnesia is greater, the stone is stronger. As I say, there are exceptions in stones—the Kentish Rag is an exception—but I think, if you will look at those tables, it will be found, generally speaking, that what I say is proved, and that there are only one or two exceptions to the rule. In Kentish Rag there is scarcely any crystalline structure at all; it is almost all carbonate of lime. Again, when Mr. Burrows stated what he did as to the absorption of water—which I quite agree is a very valuable test of the strength of stone—in the case of Kentish Rag I think there is only one and a half per cent. of the bulk which is absorbed in 24 hours. Then, with regard to the dolomites, or the magnesian limestones, if you take Bolsover Moor, or the Mansfield-Woodhouse, it will be found that those stones, in proportion as they approach the constitution of dolomite, which is one molecule of magnesia to one molecule of carbonate of lime, so they are the strongest stones, and that in each case the amount of silica in the best of them is about 5 per cent. Then, again, as to granite, I understood Mr. Burrows to state that the silica was not so important a constituent; but the tables show that silica forms in granites a very large proportion of the whole. And again, with regard to the testings of the different stones, it was shown that in several of them the results were different. It is very important, with regard to any kind of stone,—with regard to any quarry,—that architects should visit the quarry themselves.

Mr. G. F. HARRIS, F.G.S.—Mr. Chairman, it is no surprise to me to hear Mr. Burrows advocating a method of microscopic analysis, for we both think it is the only trustworthy method for an examination of building stone at present extant. When I heard the last speaker reiterate the old story of the proportion of silica in stone as showing its durability, my mind's eye reverted to the large number of microscopic slides which have passed under my notice by which that very same question was practically disposed of some six or seven years ago. When we study carefully the work which has been done, especially in America, with the microscope with regard to the examination of building-stones, and when we peruse such masterly works as those of Professor Winchell of Minneapolis, and of Mr. George Merrill of the United States Museum, Washington, and when we examine the work that is being done in Germany and the experimenting rooms and laboratory in Paris, we think that nobody who had really given very much attention to this subject could for an instant put forward the idea that a chemical analysis was anything like so important and so valuable as a microscopical analysis. On the other hand, Gentlemen, I should be very sorry to say that a chemical analysis is of no use whatever, because, of course, we ought to confirm, first of all, what is the composition of the mineral which we see under the microscope, and, having done that, we may then identify it under the microscope. I should, for one, say that if the only thing the microscope was going to teach us was the identification of minerals, it would be of next to no use in an inquiry; but when by it we examine into the stages of the decomposition of the various minerals, and when we begin to see thereby and to find out the way in which the stone is weathered, we can easily understand its practical value. In many cases in which I have visited buildings and obtained specimens of stones which I know have not stood the weather well, and have examined them under the microscope, I have discovered the peculiar conditions under which the minerals have become decomposed, and have thus ascertained why the stone has given way. I have often found, in examining the same stone, that under various circumstances it weathers in a totally different manner. I am not now alluding to when it is in an amorphous condition, nor when it is in an extreme condition—for example, when you get it as crystallised calcite—but to that form such as you find in building-stones, as a rule—say in oolites, for example—when by far the greater portion of the calcite granules are partially decomposed. It is really by the state of decomposition of the minerals as you see them under the microscope, and the associations of those minerals one with the other, that you are able to estimate the value of the microscopic examinations.

Mr. WM. TOPLEY, F.R.S.—Mr. Chairman and Gentlemen, to a geologist, much that Mr. Burrows has said to-night is fairly familiar, but to a very great majority of geologists the practical application of the microscope in the way of showing the exact value of building-stone is probably largely a new idea, and I think with the great majority of architects it is an idea which will prove of practical use. The great advantage of the process is that it shows us so much at once; and, as has been repeatedly pointed out, we learn a great deal with regard to the chemical composition and the physical character of the stone. We learn the porosity of the rock, and if we take sufficient note, with reference to the constituent parts of it, we can also learn what its specific gravity is; in fact, we can learn by the microscope a very large proportion of the information which has been learnt by the more laborious modes hitherto applied. Gentlemen should not go away with the idea that the slides which we have seen to-night, beautiful as they are, at all express the advantage of the process which has been laid before us, because, as has been pointed out, these slides are merely photographs of slides, and polarised light cannot be applied as if you were working upon the actual slides themselves.

The HONORARY SECRETARY. — Sir, I should like to be allowed to second the vote of thanks to Mr. Burrows for his very able Paper, and I am very pleased to see Mr. Rudler here to-night. Some time ago, having occasion to hunt up in the Jermyn Street Museum some building-stones, I found magnificent specimens of cubes of stones there with the names upon them, but this was the sole detail I could find. I think the suggestion that Mr. Rudler made, that Mr. Burrows, or some gentleman of equal capacity, should make

a schedule of the various properties and capacities and strength, &c., of the various stones that are to be found in this country, so that they can be attached to the various specimens in the Jermyn Street Museum, is a good one, and that whoever did that would be doing a work of real service. Architects are expected to know so many things, and to do so many things, that it seems to me they would require three lives instead of one if they had to test by all sorts of scientific methods every specimen of stone before they used it. What we want nowadays, in the rapid way in which we live and work, is a scheduled list of all these various stones ready to hand, and such a thing, I believe, at the present moment does not exist.

Mr. G. A. T. MIDDLETON [*A.*].—Sir, may I be allowed to make one remark on the suggestion that a series of tests be made as to the power of various stones to resist the action of frost or freezing mixtures? It seems to me not beyond the scope of our Science Committee to carry on such a series of tests. If they do not feel justified in doing so, surely a special Committee could assist Mr. Burrows in the series of tests suggested.

Mr. J. M. BRYDON [*F.*].—Mr. Chairman, it is not very often that we get geologists of eminence here, and what has been said by them is very interesting; but, after all, I think the practical test is what is the best kind of stone for our use. I did not gather from Mr. Burrows which he considered was the best stone, and I think it would be of great advantage to all if he would give us some notion as to what he considers the best building-stone for London. I was very glad to hear microscopic analysis so strongly advocated; and I should like to join cordially in the vote of thanks not only to Mr. Burrows, but also in one to the Science Committee.

Mr. WOODWARD [*A.*].—Mr. Chairman, I do not think Mr. Burrows will be able to answer this question, but perhaps some friend of Mr. Jackson's will. In *The Times* newspaper a few months ago, with reference to the restoration of St. Mary's, Oxford, Mr. Jackson said that Portland stone was not suitable for Gothic architecture. That was a statement made in a report issued to the authorities of St. Mary's. Now, Sir, in the erection of the Law Courts in London, the additions made to St. Margaret's, Westminster, and other Gothic buildings, Portland stone has been used. If Mr. Burrows can kindly tell me in what way Portland stone is not suited to Gothic architecture, I shall be glad; or perhaps Mr. Stokes will be able to do so.

A vote of thanks to Mr. Burrows and the Science Committee was then passed by acclamation.

Mr. H. W. BURROWS [*A.*].—Mr. Chairman and Gentlemen, I must acknowledge the very kind assistance of my friend, Mr. Harris, throughout this matter. He has said to-night that it was no surprise to him to hear me recommend a microscopical analysis for building-stones. Well, Gentlemen, it is no surprise because he himself has worked at it for many years; and it is partly owing to his kind co-operation that I have been able to place before you the Paper which I have read to-night. Mr. Harris has written a good deal upon this subject, and he invariably accompanies his descriptions with microscopic analyses; and he is one of the few men in this country who has put before architects, and the public in general, the value of this particular mode of research. If I begin perhaps with the last speaker and work backwards, the various questions will be fresher in my mind, and I shall be able to deal with them more satisfactorily. Mr. Woodward asked whether Portland stone was suitable for Gothic architecture or not. Portland stone unquestionably is as suitable as any other, so far as its durability is concerned; and I think Mr. Woodward's question refers to the colour of the stone rather than to its quality. Then Mr. Brydon asked me to state which was the best stone for our use. I do not hold a brief for any particular stone-merchant; but all I can say is that it would be utterly invidious for me to name any particular stone for use in London. The only way I can suggest is to examine stones in the way that I have tried to point out. A microscopical analysis will show which is the best stone, without going to the trouble of a chemical analysis. As Mr. Topley very truly said, under the microscope you have the means of making, not only a microscopical analysis, but, in addition, the different minerals can be determined. You can therefore make a chemical analysis to all intents and purposes—at any rate, near enough for all practical uses—and you can judge of the disposition of the minerals and learn as much as to their composition as you require to know for the examination of building-stones. Mr. Dawson endeavoured to show the value of silica in regard to the durability of stone. I have devoted a considerable part of my Paper to showing that the presence of silica in stone is not of the slightest consequence as indicating its durability. It is said, for instance, that Craigleith stone has a very large proportion of silica; but I point out that Craigleith is simply a very strong or durable stone because the silicious granules are *cemented together* by silica. If, in place of that cementing material, a small proportion of carbonate of lime were present, the chemical analysis would be very nearly identical, but you would have a rotten stone. You could pound Craigleith stone up to powder, and you would have a precisely identical chemical analysis, but you would not have building-stone. You can take sand from the seashore and analyse it, and you would have silica, but you would not have building-stone. The presence of silica does not indicate the value of building-stone, and has no reference to durability. It is true, as Mr. Dawson says, sandstones are stronger; but that is not the point. Durability is the question. That such stones are stronger is unquestionable, and the reason is not very far to seek. They are, as a rule, finer, more tightly packed, and the planes of bedding are much closer; and you therefore get a stone which resists crushing much more than limestone; but it is not always as durable. You have only to make

a comparison of the lists of stones examined by the Commissioners, and notice that time after time when sandstone and limestone are used in the same building the sandstone has decayed and the limestone has stood. If silica has anything to do with the argument, why should not sandstone have stood and limestone have gone—the exact reverse? Mr. Rudler, I think, said that there were 500 samples of stone in the Jermyn Street Museum. Mr. Emerson also backed that, and Mr. Middleton asked me to undertake, on behalf of the Science Committee, some experiments as to freezing. I think, therefore, I may take it that my time is already well occupied in prospect as the outcome of this Paper. But there is one thing with regard to what was said by Mr. Middleton, and that is this: unfortunately (being a member of the Science Committee) I have discovered that we have not large funds to work upon, and any research of the kind suggested is hardly possible. We have at present on the *tapis* some idea of testing the strength of bricks and brickwork, and if Mr. Middleton can get some of the members of the Institute to contribute a little towards that object, we might possibly be able to carry it out. Mr. Gordon Smith mentioned the advance made in knowledge with regard to the examination of building-stones as excusing the method in which the Commissioners worked. There is no question about it. Had the Commissioners known of the application of the microscope they would have used it. I do not say give up chemical analysis; but I do say, as a rule, that the only trustworthy mode is a microscopic analysis. As you can determine most of the minerals under the microscope, you have almost made up for the absence of chemical analysis, so that in many instances the only advantage of the latter is to show the composition of the stones where you have a doubt about it, and which from the microscopic examination may be rather obscure.

MINUTES. XII.

Special General Meeting.

At a Special General Meeting, held on Monday, 17th inst., at 8 p.m., Mr. Henry Currey, *Vice-President*, in the Chair, with 26 Fellows (including 5 members of the Council), and 31 Associates (including 2 members of the Council), the Minutes of the Special General Meeting, held 27th ult. [see pp. 268–270 *ante*], were taken as read and signed as correct.

With reference to the nomination of President for 1893–94, it was

> Resolved, *nem. con.*, that the Resolution of the Royal Institute, suspending By-law 26 for one year [p. 268 *ante*], passed at the Special General Meeting of the 27th March 1893, be confirmed.

With reference to the nomination and election of candidates for membership, it was

> Resolved, *nem. con.*, that the Resolution of the Royal Institute, altering By-laws 7, 8, and 9 [p. 269 *ante*], passed at the Special General Meeting of the 27th March 1893, be confirmed.

Prior to the signing of the Minutes, remarks were made in reference to them by Professor Kerr [*F.*], Mr. Leonard Stokes [*F.*], Mr. Gruning [*F.*], Mr. Woodward [*A.*], Mr. Charles Fowler [*F.*], and Mr. Lacy W. Ridge [*F.*].

The business of the Special General Meeting terminated about 8.20 p.m.

*** Referring to the Minutes of the Special General Meeting of the 27th March 1893, and the list of names of members who took part in the discussion of the Council Report on "Qualification of "Fellows: Section 3 of the Charter," the following were inadvertently omitted from the same [p. 270 *ante*]:—Mr. Maurice B. Adams [*F.*], Professor Kerr [*F.*], Mr. John Slater [*F.*], Mr. J. J. Stevenson [*F.*], and Mr. Leonard Stokes [*F.*]

Twelfth General Meeting (Ordinary).

At the Twelfth General Meeting (Ordinary), held on Monday, the 17th inst., at 8.20 p.m., Mr. Henry Currey, *Vice-President*, in the Chair, with 33 Fellows (including 6 members of the Council), 43 Associates (including 2 members of the Council), 1 Hon. Associate, and 28 visitors, the decease was announced of the following Fellows, namely: Joseph Stretch Crowther and William Charles Tuke, both of Manchester.

The Chairman announced the names of 94 gentlemen who in the March Preliminary Examination, held in London, Bristol, and Manchester, had qualified for registration as Probationers [see pp. 281–83 *ante*]. Whereupon it was, on the motion of the Chairman,

> Resolved, that the thanks of the Institute be recorded to the Board of Examiners in Architecture, the Bristol Society of Architects, and the Manchester Society of Architects for their labours in connection with the March Preliminary Examinations.

A Paper by Mr. H. W. Burrows [*A.*], on "Ex- "amination of Building Stones," illustrated with lantern slides prepared from microscopical sections of building-stones, was read by the author.

In the discussion which ensued, Mr. P. Gordon Smith [*F.*], Mr. F. W. Rudler, F.G.S., Mr. Henry Dawson [*F.*], Mr. G. F. Harris, F.G.S., Mr. Wm. Topley, F.R.S., the Hon. Secretary, Mr. G. A. T. Middleton [*A.*], Mr. J. M. Brydon [*F.*], and Mr. Wm. Woodward [*A.*] took part. Whereupon it was

> Resolved, that the thanks of the Institute be recorded to Mr. H. W. Burrows for his Paper; and to the Science Standing Committee for arranging the Meeting.

Mr. Burrows having replied, the Meeting separated at 10.10 p.m.

Death of Mr. R. H. Carpenter, F.S.A.—Mr. Ingelow writes that his friend and partner died unexpectedly, after a very short illness, on the night of Tuesday, 18th inst.

REVIEWS. IX.

(21.)

M. DIEULAFOY'S SUSA EXPLORATIONS.

L'Acropole de Suse d'après les fouilles exécutées en 1884, 1885, 1886, sous les auspices du Musée du Louvre. By Marcel Dieulafoy. [*Paris: Librairie Hachette et Cie.* 1893.]

M. Dieulafoy's long-expected work, containing the results of his explorations at Susa, has just appeared. It was published originally in parts, of which the first, containing (in three chapters) an account of the geography, historical and political, and the history of Susa, from its archaic period down to the Mohammedan invasion, was published in the early part of 1890. The second, containing an account of the fortifications, their principles, parallels found in Egypt, Assyria, &c., appeared in December of the same year. A year and a half passed before the third part was issued, in which the faïence and enamelled béton, including the famous lion frieze, were treated; and the fourth part, containing the restoration of the great Palace of Artaxerxes Mnemon, and other remains, appeared towards the close of last year. The whole volume, with some additional plates, comes out now in a complete form, and has been presented by the author to the Library. When one takes into account the enormous magnitude of the researches which M. Dieulafoy has conceived it necessary to undertake, and the extreme beauty and elaboration of the plates, one can well understand the length of time it has taken to realise this publication.

The most valuable portion of the whole work, from an architectural point of view, is that which has been devoted to the fortifications—a subject in which M. Dieulafoy, as an engineer, may be looked upon as *facile princeps*. The researches he undertook and the discoveries he made there seem to have been much more careful and more complete than those of the Palace, and he carries you with him, therefore, in his arguments when, in subsequent chapters, he enters on the restoration of the original walls. It could scarcely be expected that in the comparatively short time he spent in Susa he would have been able to trace out and measure the stupendous lines of defence which encompass the three eminences of the tumulus—namely, the Citadel, with its Keep; the Royal Acropolis, containing the palaces of the king and the residences of his retainers; and the Apadana, or throne-room. But, having once correctly ascertained the exact formation of the triple wall of circumvallation in those points where they were the best preserved, it became easy to trace the main lines on which they existed throughout the whole perimeter. What seems to be the most astonishing is the extraordinary massiveness of the outer walls, which in some instances measure 60 feet thick; and these only constituted the outer line, the whole depth of defence, including the triple wall and interior rampart, measuring no less than 400 feet. It is necessary here to take into account the fact that the walls were built with bricks dried only by the sun; but a few weeks' exposure in a temperature of 150° to 160° Fahr. would yield a material of considerable durability. In some cases the outer skins of these walls, from 15 to 20 feet in thickness, were built first with sun-dried bricks, the centre portion being filled in with clay (*pisé*). Provision for draining these walls was made with layers (horizontal and vertical) of pebbles or gravel (*gravier*). The proximity of the towers is also another interesting feature, this proximity being necessitated by the comparatively small range of the arrows, so that the curtain walls were only 80 feet long, the distance from centre to centre of tower being 115 feet. The height of the walls surrounding the palace of reception, or throne-room, was of less dimensions, so that from its platform an extensive view could be enjoyed by the king and his retinue.

A special value is imparted to this section of the book by the elaborate description M. Dieulafoy gives of the methods of attack and defence adopted in ancient times, illustrated by numerous woodcuts taken from Sir Henry Layard's *Monuments*, one of which, on page 141, actually represents this Acropolis of Susa. This portion of the work is based on the interesting contributions which Viollet-Le-Duc made to the methods adopted by the Romans; but here M. Dieulafoy carries it further back, and not only proves the correctness of many of Viollet-Le-Duc's theories, but adds considerably to them. By way of parallel, M. Dieulafoy describes the fortresses of Egypt and Assyria, the former derived from M. Maspero's works, and the latter from those of Sir Henry Layard, Victor Place, and other authorities. This portion of the work is also abundantly illustrated with woodcuts from their plates.

Chapters ix. and x. deal with the faïence, or enamelled terra-cotta, and the enamelled béton (*terre emaillée*), which seems to have been employed in the Palace of Artaxerxes Mnemon. It is no exaggeration to say that the frieze of lions, the frieze of archers, and the wall linings of the ramps of the great staircases, form by far the most beautiful scheme of wall-decoration which has ever been conceived; and the reproductions in M. Dieulafoy's work, which are of an admirable kind, fully bear out this assumption.

The frieze of lions was found, as is well known, with its face downwards, lying on the pavement of the great court in front of the Apadana, or throne-room, and was covered over with 9 or 10 feet of the earth-wall, which had fallen on it. M. Dieulafoy happened to be running a trench at an angle in front of this wall when one day a workman brought some enamelled béton blocks to him. Recognising that they might form part of a frieze, he ran another trench parallel with the wall, and as the fragments were taken out they were placed side by side, face upwards, until one complete lion, portions of others, and an inscription rewarded his discovery. This is now set up in the Louvre, and constitutes one of its greatest treasures. The béton blocks would seem to have

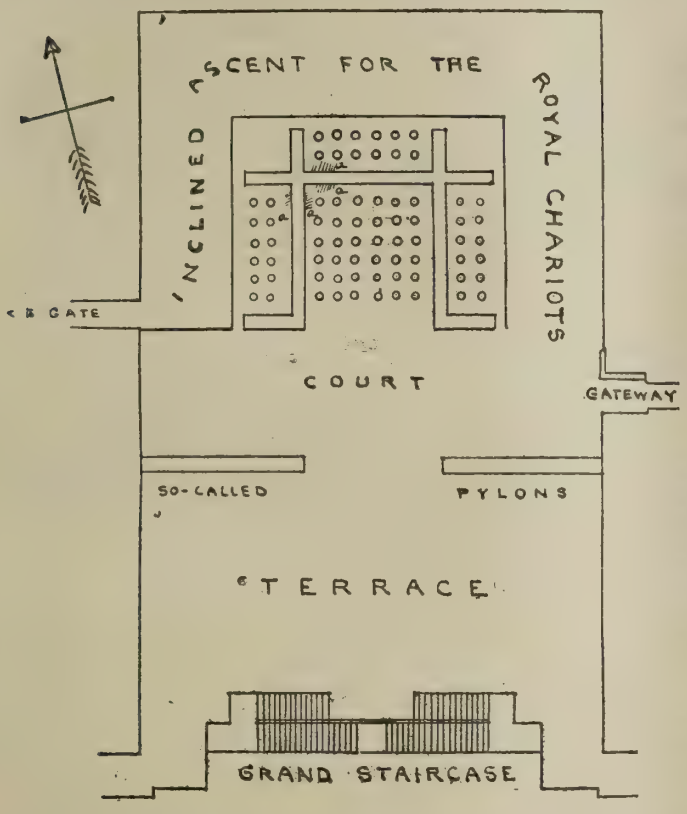
had the outlines drawn on them whilst still in a soft state, slight furrows being left to keep the enamel in its place. The blocks were afterwards burnt, and although here and there the enamel has slightly run, this has only taken away what might have been too hard an outline. Seen from a distance the effect is most decorative, and the beauty and harmony of the colours are perfect. The frieze of archers was found at a much lower level in the proximity of the south-east corner of the Apadana; and M. Dieulafoy is of opinion that it is of far earlier date than Artaxerxes Mnemon, and belonged probably to the Palace of Darius. Though found at a much lower depth, and belonging to an earlier palace, M. Dieulafoy places it as decoration to the wall in his restoration of Artaxerxes' Palace, which scarcely seems reasonable. The only use a Persian monarch made of his predecessor's palace was to employ the materials as a *filling-in* to his own walls.

The wall-lining of the great staircase was not found *in situ*; in fact, no trace of the latter remained; and so many patterns of staircase wall-lining were discovered that I can only suppose there were several staircases, the position of one only of which M. Dieulafoy considers he has found. When we come to the discoveries made in the Apadana,* I must confess to a certain amount of disappointment at the very moderate addition M. Dieulafoy contributes to our knowledge on the precise plan of this structure. Already in 1850 Loftus had discovered and measured the Apadana, which he showed had a central hall of thirty-six columns and three porticoes, precisely the same as the Palace of Xerxes, except that it was of slightly smaller dimensions; and common sense would lead us to suppose, in opposition to the theories of Coste, Texier, and MM. Perrot and Chipiez, that Fergusson's restoration, with walls round the central hall and flanking the porticoes existing, was correct. Absolutely the only addition M. Dieulafoy makes now to our knowledge is the fact that at the north and west angles of the hall he discovered the position of the wall, which he traces, by the discontinuance of the pavement (see Plan A), the thickness of the wall being 16 feet. This is a very poor contribution; in fact, it seems that the extraordinary value of the artistic treasures which day by day he was unearthing on the site caused him to forget that he might one day be called upon to work out a restoration of the Apadana itself. Loftus had also discovered the remains of capitals and bases, which would have enabled us, by comparison with the palace at Persepolis, to restore wall and porticoes as M. Dieulafoy has done.

In order to show the relative position of its three subdivisions, the Acropolis of Susa consists of a plateau in the shape of a rhomboid, measuring, approximately, 3,000 feet long from east to west, and 2,800 feet from north to south. A spur at the south-east angle makes the east side about 3,600 feet long. This side, occupying nearly half the plateau, and called the Royal Acropolis, contained the palaces of the king, his harem, and the residences of his retinue. On the south-west angle the citadel, with a semicircular front facing south-west, occupied half of the west side, and the Apadana, with its court and terrace, the other half. These two latter overlooked the valley through which the Chaour River ran. Between the three was a triangular space, which M. Dieulafoy calls the "Place d'Armes." From this was the principal approach to the Apadana. Two others existed: one on the north side, with an ascent for chariots to a road round the Apadana; and on the south side a communication with the Royal Acropolis through a stone gateway, portions of which were found. No trace of the great staircase leading to the Apadana platform from the "Place d'Armes" could be discovered; but the marked difference in level between the two, and traces of an enclosure-wall on the north side, enabled M. Dieulafoy to approximate its position (see Plan A). In other parts of the excavations—chiefly, I believe, in the walls built by the Sassanians at a later period—M. Dieulafoy discovered the enamelled béton slabs which face the walls of this staircase, and by piecing them together he was able to determine pretty accurately the rise (4 inches) and tread (15 inches) of the steps, and, by the difference in level, the total ascent. The length of the steps and the size of the landing failed him; here, however, he was able to base his restoration on the great staircase of Persepolis. It (see Plan A) consisted of a double flight running right and left, with return-flights, and he has shown 36 steps, which give a total rise of about 8 feet. In front of the staircase, and at about 300 feet distant, M. Dieulafoy traced the remains of two immense walls, about 23 feet thick and 230 feet long each, and these, by a curious misnomer, as it seems to me, he calls pylons. He compares them with the pylons of Egypt, which, as we know, were immense doorways in stone, with pyramidical masses on each side, sometimes of stone and sometimes of brick, the actual doorway ranging from 10 to 25 feet wide, and proportionately double the height. He also quotes as a similar feature the Vicadahya at Persepolis. (This, according to Fergusson, was a square hall, with its roof supported by four columns, and with centre doorways on each face; two of these still remain; the trace of the third is shown in Coste's work; this, however, does not prevent all the French archæologists from supposing it to be open on the two sides.) The principal doorway in this Vicadahya is 12 feet wide, with the same propor-

* This is the term given to the central hall of columns of a Persian palace, and is so recorded in an inscription found at Ecbatana. M. Dieulafoy contends that it is not mentioned in any building at Persepolis, and applies only to the example at Susa, because on one of its faces (the south) there was no enclosure wall to the hall of columns. As M. Dieulafoy, however, in his work, *L'Art antique de la Perse*, gives that name to the Hall of Xerxes, which certainly had four enclosure walls, and, moreover, on plate xxi., vol. ii. describes a column as coming from the Apadana of Xerxes, he must have changed his mind.—R. P. S.

tion as regards height as those in Egypt. But what are we to think of M. Dieulafoy's appellation to the feature at Susa when we find that the distance between the two walls—the opening, that is to say—measures *over* 180 *feet*? It seems to be rather a stretch of the imagination to call this a doorway, and it is unfortunate he did not search between the two walls for some further indications of an enclosure. It was from the inner surface of one of the walls that the lion frieze, as

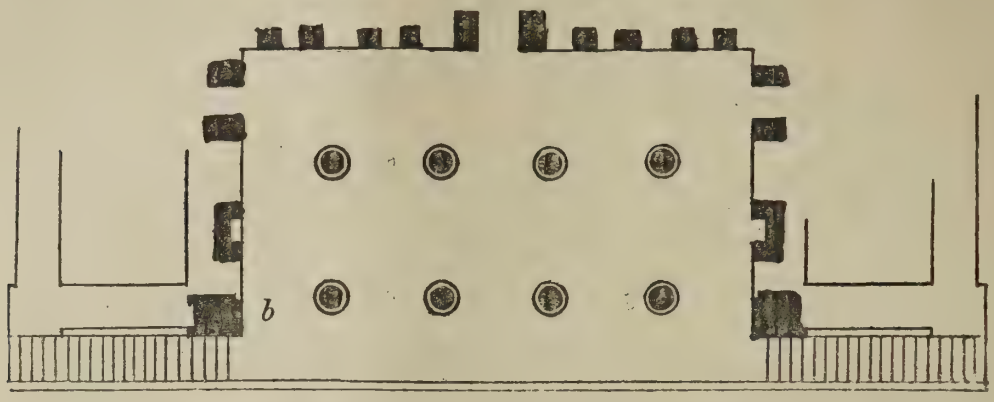


A.—Plan of the Apadana, or Throne Room, in the Acropolis of Susa.

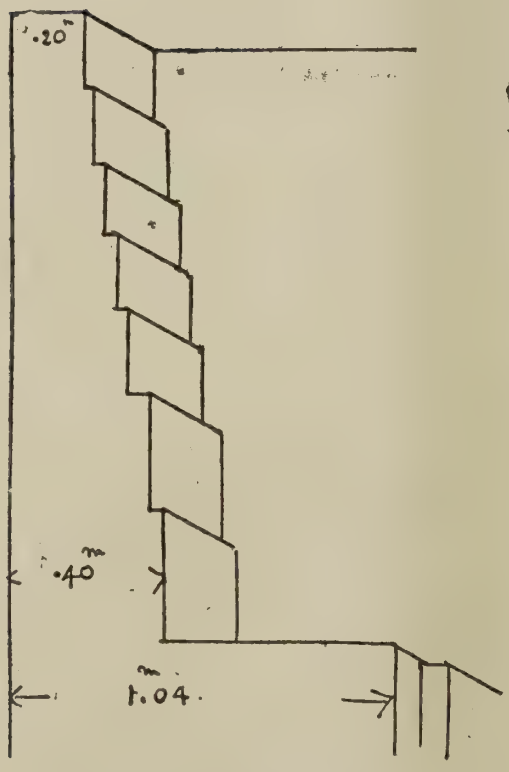
a a, Traces of pavement showing line and thickness of walls.

before mentioned, was obtained. Beyond these walls, and about 170 feet distant, stood the Apadana, which, with its porticoes, measured about 400 feet wide by 250 feet deep. A plan of this palace is given in his general plan of site, which, with the smaller pylons and the staircase, is reproduced above. In this it will be seen that he encloses the ends of his porticoes with flank walls, but he omits the wall on the south side of the great hall. Such, he admits, was not his first thought, and he suggests that on his return to France, after his first visit to Susa, he assumed that the enclosure consisted of four walls similar to the Persepolitan examples. But while he was occupied with the restoration four facts struck him: First, that the principal entrances to the Persepolitan examples are through a portico, whereas there is none here on the south side, which the staircase shows to have been the chief entrance; secondly, the continuation of the pavement in front of the throne-room (mentioned for the first time, but not shown where on plan), which, running through, proved there could be no wall there; thirdly, the orientation (south) of this façade; and fourthly, the designation of the Susa Hall by the Persian word Apadana, which does not exist at Persepolis. As regards the latter fact, I have already pointed out that he himself used the word Apadana in connection with the Hall of Xerxes in that city; and as regards the second fact, in 1888, when he published his work on *L'Art antique de la Perse*, he showed a plan of the Apadana at Susa with four walls. His last visit to Susa was made in 1886, two years before he published this plan. But the singular fact is that, even in his complete work just issued, M. Dieulafoy gives two versions—one published, I think, in the early part of 1892, the large general plan from which I borrow my illustration; and an outline plan published in or about November (p. 342), in which he shows antæ in the great hall which are not suggested in the former. But I will return to these features again.

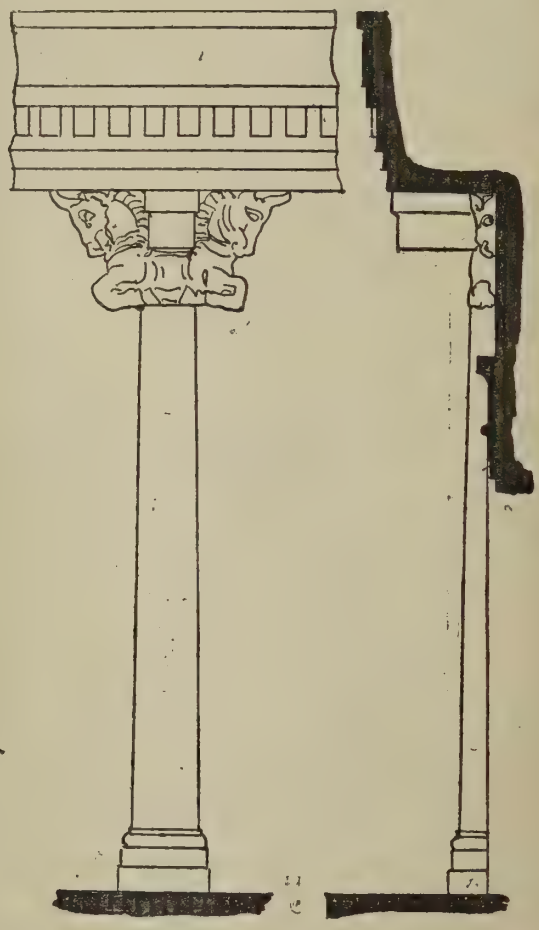
To the second and fourth facts I do not attach much importance, any more than M. Dieulafoy was inclined to do himself; but with respect to the first and third, I think there is considerable reason for his restoration. Placed as it is in face of the great wall and staircase, there is every probability that in this example the central hall served the purposes of the portico. It faced the south, and the throne placed below the second and third rows of columns is not likely to have received the rays of the vertical sun. M. Dieulafoy's argument, however, is chiefly based on the existence of similar portions in other palaces, built, as I think, by the Parthians and Sassanians at a much later date, viz. at Al Hadhr, Ctesiphon, and Mashita, and the much later Persian palaces. The precise epoch at which these were built is not of importance; they were erected in a similar climate, and may well, therefore, be taken as argument. The great halls at Al Hadhr, by the way, face east. Mashita and, probably, Ctesiphon have south aspects.



B.—Plan of the Portico of the Palace of Darius, Persepolis.



C.—Upper portion of Stone Pier *b*.
[See Plan B.]



D.—Tomb of Darius—Elevation and Section.

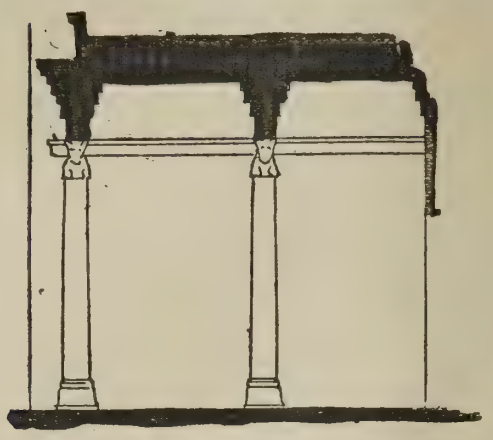
M. Dieulafoy's restorations of the Apadana are shown in two photogravures taken from the model which he has had prepared, and which is now in the Louvre. In the photogravure of the south front he has failed to take cognisance of the deep trench on the left-hand side, the trench which forms the inclined ascent for the chariots, and which at this point is 9 feet deep; some sort of wall should have been shown there. But in the other photogravure, taken from the north-west corner, the discrepancy is worse, for there also the podium wall is 9 feet high; and if this had been worked out in the model, I think M. Dieulafoy would have thought it more reasonable to have placed some kind of structure in the angle formed by the two flank walls of the north and east portions. He may have elected to stand by the example of the Palace of Xerxes at Persepolis, where these angles are supposed not to have been occupied by buildings; but Mr. Weld Blundell * discovered there in 1892 a deep layer of burnt wood similar to that which was found in the Palace of the Hundred Columns, and which proved conclusively that these spaces were occupied and covered with a wooden roof.

Now, as regards the antæ shown in M. Dieulafoy's last plan, p. 342, but not shown in any of his earlier plans, though he does not specifically draw attention to them, in a valuable plan of the Hall of Xerxes, Persepolis, given on page 338, he shows antæ round the great hall; this is published to confute Messrs. Perrot and Chipiez's imaginary restoration with three porticoes into a central hall *with no enclosure walls at all*, as if such a structure could possibly exist; and, if erected, could ever have served the purposes it was destined for. In this plan, but in a hesitating manner, as if not quite sure, M. Dieulafoy indicates the trace of two antæ. It should be noted that here, as at Susa, M. Dieulafoy has not the courage to show them in the porticoes, where I presume they would equally be required to carry the beams of the roof. Is there, however, any precedent for antæ in Persian work? I am aware that in Greek work the antæ are, like the triglyphs and other features, due to the traditional use of a feature, decoratively, which was in early work a constructive necessity. The drawings published in Schliemann's work on Tiryns, and the minute description given by Dr. Dörpfeld, clearly show that the early Greek architects, in the feature known as "Portico-in-antis," were unwilling to trust to the support of a crude brick wall, or one built with rubble masonry set in clay mortar, to carry the architrave of the portico, and therefore they erected against the flanks of the side walls balks of timber. These no longer exist at Tiryns, but their stone bases were found, with the sockets in which the traces of the lower end of the vertical beams were fixed, and these features, the antæ, were copied afterwards in marble as a decorative finish in the Greek temples. No example has yet been found in Egypt in wood, but antæ are found in the "Portico-in-antis" and interiors of the tombs at Beni Bassan, which leave no doubt as to their origin. But is there any reason for supposing that the same system was adopted in Persia? I think not. I am of opinion that they provided against this contingency in the same way which is adopted by us at the present day—namely, the use of wall-plates. It is true there is only one example existing which suggests it. In the stone pier of the portico of the Palace of Cyrus (published in M. Dieulafoy's *L'Art antique de la Perse*) at Pasargadæ, in addition to the sinking in which the architrave of the portico was fixed—and I will refer to this feature again—there is a second sinking or mortise in which the plate was laid to carry the beams of the porch. I think, therefore, that the probabilities are against the employment of antæ in Persian architecture,* with the sole exception of the main piers which always flank these porticoes, but for which there was a special requirement. To explain this I will point out what seems to be another mistake in M. Dieulafoy's restoration. It will be observed in the photogravure of the south front that the piece of timber, placed in the backs of the bulls which carry the architrave, is shown flush with the front row of columns.

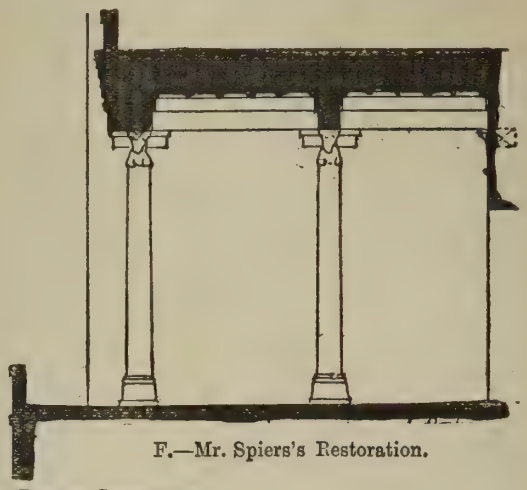
Now, it is a singular thing that not one of the restorers of these Persian palaces seems to have

* Mr. Weld Blundell went out to Persepolis in the beginning of 1892 to select examples of the best sculptures (capitals and bas-reliefs) and superintend the execution of moulds, in order to reproduce casts for the British Museum. I prepared for him a plan of Persepolis and directed his attention to three points:—1. The exact position of the drain which was shown in Coste's plan as running under where Fergusson places the enclosure walls of the Great Hall of Xerxes. 2. The trace of walls enclosing the angles of the flank walls of the porticoes already referred to; and 3. The truth of the statement by Coste and Texier that no walls could exist on certain parts of the site, because they said the natural rock exists there, and no traces of walls could be found on them. Mr. Weld Blundell ascertained—1. That the main drain ran underneath the hall, between the enclosure walls and the first row of columns, and that some of the natural rain-water ducts, measuring 15″ × 12″, and cut in large blocks of stone, actually existed 15″ and 14″ above the level of the platform, showing that they could not have served only to drain the latter, as Coste, Texier, and MM. Perrot and Chipiez imagined. 2. That the angles were occupied, as evidenced by the layer of charcoal; and 3. That what Coste thought was the natural rock turned out to be an artificial crust caused by the continual passing of rain-water containing lime washed over the surface, and hardened for centuries by a tropical sun. When broken with some labour with the pickaxe the traces of foundations of walls were found beneath the artificial crust.—R. P. S.

* M. Dieulafoy, however, himself disposes of the antæ in his own drawing, represented in A, in which he indicates the exact line of wall, which he *traced on the existing pavement*, shown by hatching *a a*, which he contends absolutely decides it; and no antæ are shown, though the pavement passes by where two would have existed.—R. P. S.



E.—Coste's Restoration.



F.—Mr. Spiers's Restoration.

PORTICO OF THE PALACE OF DARIUS, PERSEPOLIS.

grasped the fact that the Persian capital was not only a double-bracketed capital, but a quadruple one, by reason of the wood bracket placed on the back of the bulls. Whilst the projecting bull-heads lessened the bearing of the architrave beams, parallel to the façades of their porticoes, *the wood brackets performed a similar task with the cross beams*, and it is really amusing to trace the various ways in which Coste, Texier, MM. Perrot and Chipiez, and M. Dieulafoy twist and turn about in their restoration to get rid of the dilemma. Sometimes they destroy any value they might have, by keeping the front of the wood brackets on the same face as the columns (M. Dieulafoy, MM. Perrot and Chipiez, *Hall of Xerxes*). Sometimes they actually allow it to project without doing any duty (Texier). M. Dieulafoy, in his work *L'Art antique de la Perse*, carries the bracket through to the back wall or range of columns, as if it were a tie; a function it would certainly be incapable of fulfilling, as it has no hold on the front column. Coste, however, carries the absurdity still further. In order to explain the question at issue, we have in the Palace of Darius at Persepolis the best preserved structure on the platform there, and it is on this palace that Fergusson based his restorations. There is only one portico, but that will be sufficient for my purpose. I give a plan (B),* from which it will be seen that it consists of eight columns, placed in two rows, with four in each, and flanking walls. The columns are gone, but their position is shown by the foundations, and they were copied in the tomb of Darius carved in the rock which overlooks the platform. On each side of the first row of columns is a stone pier, in the side of which is still preserved the sinking in which the wooden architrave and cornice of the portico rested. This is clearly shown in Coste's work on *L'Ancienne Perse*, vol. iii. pl. 118, which is also reproduced (C).* The pier has a return of about 3′ 5″, and in the upper part is cut a sinking which has various set-offs. In these fitted the architrave and upper members, which formed an assemblage of several timber beams. Their form and function are recognised in the tomb of Darius, of which I give a section and part of one column (D).* Now it will be observed that the architrave of this tomb which is cut in the rock *actually projects* 23″ *in front of the face of the column.* What was the object of so peculiar an arrangement? I can only conceive of one reason. If, as I am of opinion, the capital with its wooden bracket was a *quadruple-bracketed capital*, it is evident that while the bull-heads lessened the bearing of the architrave in one direction, and the wooden brackets the cross beams at right angles to the same *in order to counterbalance the weight on the inside, it was necessary to carry the architrave out to the end of the bracket on the outside*, and this is one of the reasons why in every portico a stone pier was necessary at each end to keep this projection in position. Now applying this structure in the tomb to the disposition of plan (B)* in the palace, it will be seen that the line of columns is set back to allow of this projection in front. With these facts before Coste, and with his own plate, No. 118, before him, it will scarcely be conceived that in his imaginary restoration he should actually have set back the face of architrave, as shown in drawing E, so as to bring it back 30″ instead of the 16″ as shown on plate 118, and allowed the bracket to project forward uselessly 14 inches. My own version is shown in F. Now it is only fair to M. Dieulafoy to say that in the Palace of Susa no trace of any such stone piers has been found; but all these palaces reproduce one another in their features with such absolute fidelity that it is almost certain that the same rule which applied to the Palace of Darius, to his tomb, and to three other tombs in the same rock, obtained in the Palace of Susa. With respect to the vertical grooves which M. Dieulafoy introduces on the exterior walls, there is no

* See page 304 *ante*.

authority for them in Persian work, and his design would gain infinitely if they were omitted, and the wall surface decorated with that diaper of white and pale rose tints which was discovered to have existed under the frieze of lions. These grooves are still more out of place, as they are shown descending on the top of the doorways, which also seem uncalled for: such doorways and niches only existed under the portico or in the hall, and, so far as we know, are not found in external walls.

Messrs. Perrot and Chipiez take exception to the effect of the wings, which, projecting in front of the first line of columns in the Apadana, look, they say, like towers. As I hold the opinion that in the Palaces of Darius and Xerxes at Persepolis the porticoes were flanked by towers on their principal fronts, I am not inclined to find fault with their effect; but, architecturally speaking, the setting back of the first line of columns as shown cannot be defended. The crowning features of the walls and their decoration seem to be the best portion of the restoration; but I am quite unable to understand the minute calculation into which M. Dieulafoy has found it necessary to enter (pages 280-286) in order to fit into his design, as a sort of Panathenaic frieze under the porticoes, the so-called frieze of archers. If I understand rightly (p. 280), the archers were found at a great depth—namely, 13 feet below the standard level of the Apadana, and under the substructures of the great doorway which communicated with the Royal Acropolis. It is quite certain, therefore, that they could not have decorated Artaxerxes Mnemon's Palace. Moreover, in their workmanship M. Dieulafoy recognises an earlier and a purer style, which he considers belongs to the time of Darius, who is known to have erected a palace here. It is true that a similar frieze might have adorned the Apadana in question, but no traces of its remains have been found, and even then it is not likely to have been of the same size: for if there is any characteristic of these Asiatic sovereigns which is predominant in their nature, it is the desire to excel their predecessors in the magnificence of their work: thus Darius in his palaces at Persepolis surpasses Cyrus at Pasargadæ, and Xerxes completely eclipses Darius by his great Hall in Persepolis. The Apadana of Artaxerxes Mnemon is likely to have been far larger than that of Darius,* so that it is of no value to try and fit his decorations in.

Chapter xiii. is devoted to proofs of the authenticity of the Book of Esther, a review of which I will leave to more competent authorities. It is, however, of considerable interest in the analogies which are shown between the main features of the Apadana, such as are recognised by all, and the descriptions given in the Book of Esther.

* In support of this argument M. Dieulafoy accounts for the absence of the Apadana in the bas-relief at Nineveh representing Susa, by the fact that the latter was carved at an earlier date, before the platform was constructed to receive the Apadana of Artaxerxes Mnemon.—R. P. S.

Chapter xiv. describes a building which M. Dieulafoy calls an Ayadana, a word the interpretation of which is "houses of the gods" (*maisons des dieux*). If the interpretation be true, and the building of which M. Dieulafoy has discovered the plan be an example, it is the solitary instance known. At the same time, he points out that Herodotus, Xenophon, and Strabo affirm that the Persians erect neither statues, nor temples, nor altars. As bas-reliefs of figures are found everywhere, and at Pasargadæ there are two altars, the Greek authorities may be in error. The lower portion of some of the walls and of two columns of the Ayadana still remain, and discovery of the pavement, more or less well preserved, has enabled M. Dieulafoy to work out the whole plan. It consisted of a court 55 × 50, open to the sky, with a corridor round, a portico in which the columns are set behind the antæ (as in the Palace of Darius), and in the rear a hall with four columns carrying the roof, also enclosed with a corridor, with entrances at each end at the top of a flight of stairs. In the centre of the court was the fire altar.

The last chapter is devoted to the description of the various stages of construction by the several races who have occupied Susa—the Elamites, the Achemenidæ, the Seleucidæ, the Parthians, the Sassanians, and the Mohammedans, from 700 B.C. to 1100 A.D.—with a general description of the various articles of policy and seals discovered in the trenches, and is illustrated by numerous examples in colour and otherwise.

In terminating this article, if in my description I have treated in too critical a manner some of M. Dieulafoy's restorations, it is more with the view of arriving at some definite conclusions as to the precise nature of these Persian palaces than to find fault with his great work. Considering the serious difficulties with which he had to contend—difficulties which beset Loftus when he commenced the work: the intense heat, the insalubrious nature of the country, the continual troubles involved when searching in the vicinity of a tomb looked upon as most sacred by the fanatical Mussulmans, viz., the tomb of Daniel between the river and the tumulus—the unsatisfactory and irregular service rendered by the natives, and difficulties of every kind constantly being raised by the authorities, whose permission it was necessary to obtain—I consider that M. Dieulafoy has not only reason to be proud of his achievements, but in the actual results arrived at, in the embarkation and extradition of the splendid artistic treasures with which he was able to enrich the Louvre, and in the valuable works which he has produced since as the result of his explorations, his indefatigable industry and research are worthy of all praise; and I must acknowledge the great debt we owe, not only to him, but to his courageous spouse, who not only accompanied him in his travels, but took upon herself no small portion of the work undertaken, including that of the publication of valuable records of the gradual progress of the excavations, and other descriptions of a more popular character.

R. Phené Spiers.

(22.)

EXAMPLES OF ITALIAN APPLIED ART.

Arte Italiana, Decorativa ed Industriale. Anno primo. Edited by Ferd. Ongania. Fo. Venezia 1890–91. *From the Cav. Ongania, per Cedric Chivers, Bath.*

This folio serial is being published monthly; each part contains about eight pages of text, with numerous text illustrations, and four whole-page plates, either in chromo-lithography or heliogravure, besides large sheets of working drawings and details. It appeals to almost every class engaged in the many forms of art production, and certainly not least to architects. Its programme is a comprehensive one, for it sets out with the intention of illustrating and explaining beautiful examples of Italian applied art, whether Antique, Mediæval, or Renaissance; and, although published in Venice, proposes to select its examples impartially from all parts of Italy. The field is rich enough, indeed; and although thus limited to one country, the editor must find the work of selection difficult rather from the richness of the store which lies open to him than from any lack of available material.

This first year's result is certainly of good promise. The articles on the several kinds of works, wood carving, tarsiatura, iron work, bronzes, bookbinding, woven fabrics, &c., are by various writers, each taking the subject with the history and practice of which he has sufficient familiarity to explain it simply and intelligently. Thus, in one article, the whole process of working in niello is given by Signor Urbani di Gheltof; and the principal example is illustrated not only in outline with the text, but by a chromo-lithographic plate full size.

To architects the chief interest of the work will be found, I think, in the admirable heliogravure plates. The immense value of heliogravure as a means of illustrating detail in architectural works has, perhaps, not yet been fully recognised. It must soon become the only acceptable method for the direct presentment of detail in relief. It is not alone the fact that the object is given with unquestionable accuracy—placed before one by the original artist, so to say, instead of through the intervention of another draughtsman (who can only give his own reading of it)—but it is so placed with all the technique, with the very texture and finger-marks upon it. To the man who has only seen the same object illustrated by an engraving, however excellent, any one of those given in the plates 22, 23, 40, 41, is revealed for the first time. The antique stuccoes in the two plates last named are seen there as the originals themselves could only be seen in a favourable light. One can, from plates 40 and 46, read at a glance not only the masterly Greek spirit in these small figures, but the intelligent deftness of hand, the very method of expression. If ever our "Schools "of Art" are to serve the true purpose for which they were inaugurated, namely, the production of real art-workers, not indifferent painters of still life, it should be by having such illustrations as these before their students. How instinct with grace and nature; yet how simple in manipulation! See how deftly the scroll (on plate 41) is outlined, sometimes by an edge thrown up in modelling, sometimes by a line incised in the ground. Yes, this is *real art*; and we see it on this paper page as if we could handle the stucco itself. I wonder what the man who did this (he must have been a Greek!) would say to our Jubilee coinage!

The editor, in his preface, says truly enough that it is easier to criticise than to produce a publication of this kind. He certainly deserves every praise and encouragement; nor will he, perhaps, regret a little honest criticism. I would point out an error on page 52, where the illustration, fig. 81, is wrongly named. The carved stalls here shown are undoubtedly those in S. Pietro at Perugia, *not* those in S. Quirico d'Orcia, as described. I must also remark of some of the coloured plates that they are not satisfactory. The "Pavimento a Mosaico," No. 32, conveys no idea of the effect or colouring of a mosaic pavement; and the important plate, No. 8, exhibiting the decorated wooden ceiling of S. Maria dei Miracoli, is absolutely wrong in colour. The narrow dividing band here shown of a purple slate-colour is in reality of a deep blue; the small shaped panels with grisaille ornaments, here shown with grounds of pale blue, have really grounds of so dark a blue as to appear almost black; whilst the small oblong panels, in some of which boys are painted also in grisaille, have black grounds, not light blue. My own notes of this ceiling were made in 1863; the church was undergoing restoration when I next visited Venice; I can only hope that the Cavaliere Ongania's coloured plate does not really represent the ceiling *as restored.* In the interesting history which Signor Pietro Paoletti here gives of this decoration, he mentions the artists employed on it, and the dates; but says nothing of recent re-painting. I therefore assume the error to be in the printing. It should be corrected in another edition; for the same stones would, of course, print the proper colours; and this church is so well known that the mistake cannot fail to give an impression of inaccuracy which the editor will naturally wish to avoid.

If the character of the publication is maintained at the high level of its first year, it should soon have a deservedly large circulation. To all Art schools it should be a necessity; the more so that it is put forth as a popular work. It touches many crafts, and gives each some examples of value. It is a useful acquisition for our Library, and will repay a very careful inspection. I commend it also to the notice of the Architectural Association.

J. D. Crace.

The Institute of New South Wales.—A communication of the highest interest has been received from Mr. Horbury Hunt, President of the newly-allied Institute at Sydney, but too late for insertion in this number of the *Journal.*

London: Printed by Spottiswoode & Co., New-street Square; and published by The Royal Institute of British Architects, at No. 9, Conduit Street, in the Parish of St. George, Hanover Square, both in the County of Middlesex, 20 April 1893.

THE JOURNAL OF PROCEEDINGS OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

VOL. IX. NEW SERIES — No. 14 — 4 MAY 1893

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EXAMINATION FOR CANDIDATURE AS ASSOCIATE, APRIL 1893.

Presidential Statement to the General Meeting, Monday, 1st May 1893.

GENTLEMEN,—I am now enabled to report the results of the Examination held during the week commencing 10th April 1893, in London, Glasgow, Bristol, Leeds, Manchester, and Newcastle, to qualify for candidature as Associate R.I.B.A. There were 126 applicants, of whom 87 were new, and 39 had been relegated from previous examinations. Of these, 106 were admitted, though only 100 attended. *Seventy-one* were examined in London, *four* in Glasgow, *four* in Bristol, *seven* in Leeds, *eight* in Manchester, and *six* in Newcastle, under the charge of the Allied Societies respectively. All the answers in the written and graphic portions of the Examination were marked by the London Board of Examiners; and the probationary work of all the applicants was examined in London. The oral examination of applicants at the several non-Metropolitan centres was conducted by a small Board appointed by the respective Allied Societies, whose reports on the same were forwarded to the London Board. Fifty-eight of the applicants have been relegated to their studies for periods, while forty-two have passed and are declared qualified for candidature as Associate, namely:—

ANDERSON: William James	136, Wellington Street, Glasgow.
ASHWORTH: William Clarke	(Exeter) 8, Adam Street, Portman Square, W.
BALFOUR: Robert Shekleton	72, George Street, Edinburgh.
BEEVERS: William Henry	25, Bond Street, Leeds.
BLACKBOURN: Henry	6, Queen Anne's Gate, Westminster, S.W.
BLAYNEY-CLARKE: Edmund	178, Lozells Road, Handsworth, Birmingham.
CAWS: Francis Edward	22, Fawcett Street, Sunderland.
CLARK: Charles James	Reconstruction Office, Marlborough Lines, Aldershot.
COWIE: William	1, Bridge Street, Forres, N.B.
CREIGHTON: Henry Currie	27, Devon Place, Newport, Mon.
CROUCH: Henry Arthur	(Brisbane) 2, Great Coram Street, W.C.
DIXON: Albert Edward	54, Francis Street, Leeds.
EARLE: Frank	Rydal Mount Villa, Eldon Grove, Hull.
GLADDING: Alfred	34, Gower Road, Forest Gate, E.
GLEAVE: William Richard	108, Bignor Street, Cheetham Hill, Manchester.
HARRIS: Sidney Frank	The Green, Hardingstone, Northants.
HEBBLETHWAITE: Charles Henry	235, Norwich Road, Ipswich.
HILL: Edwin Arthur	Oakfield Lodge, Warley Road, Brentwood.
HOCKINGS: Percy Frank	(Brisbane) 8, Stockwell Park Walk, Brixton, S.W.

HODGEN: William	(Queensland) 8, Stockwell Park Walk, Brixton, S.W.
HOPKINS: William Bonner	Fairhill, Great Berkhamsted.
HOUSTON: John Lloyd	13, Furnival's Inn, E.C.
INGLIS: John Alexander Russel	10, Albany Street, Edinburgh.
JEFFERIS: Harry	(Sydney) 45, Maitland Pk. Rd., Haverstock Hill, N.W.
LINES: Fred Hunter	44, Clarence Gardens, Regent's Park, N.W.
LOFTHOUSE: Thomas Ashton	62, Albert Road, Middlesbrough.
MORRICE: Arthur George	85, Ponsonby Place, S.W.
PATON: William Mortimer	44, Boscombe Road, W.
PICKFORD: Edmund Dealtry	329, Lordship Lane, Dulwich Rise, S.E.
RANSOME: James	11, Argyll Place, W.
ROBERTSON: Andrew	56, Kenmure Street, Pollokshields, Glasgow.
ROBINSON: Marshall	24, Nelson Square, Bolton.
ROCHE: Cecil Stuart	98, Gloucester Terrace, Hyde Park, W.
SHIRES: Benjamin Priestley	1, Springfield Terrace, St. Jude's, Plymouth.
SIMPSON: Gilbert Murray	16, Ship Street, Brighton.
SKINNER: Edward	3, Wolseley Road, Crouch End, N.
THOMSON: Robert John	277, Lavender Hill, S.W.
THORNELEY: Arnold	10, Bickerton Road, Birkdale, Southport.
WATKINS: William Gregory	Leyland House, Lincoln.
WHITCOMBE: Charles Ford	48 & 50, Howland Street, Fitzroy Square, W.
WHITE: Frank Tupper	34, Gubyon Avenue, Herne Hill, S.E.
WHITE: John	17, Washington Street, Glasgow.

In the Examinations held this Spring the Allied Societies have given valuable assistance to the Institute. The Bristol and Manchester Societies have held both a Preliminary Examination and an Examination qualifying for candidature as Associate; and the latter Examination has also been held by the Glasgow Institute, the Leeds Society, and the Northern Association. I think that a special vote of thanks is due to each of the Allied Societies I have named, as well as to the Chairman and Members of the London Board. I should also like to include in our record of thanks the gentlemen who have acted as Moderators in the examinations held this Spring in London, namely:—Mr. H. P. Burke Downing, Mr. C. B. Hutchinson, Mr. A. Blomfield Jackson, Mr. Herbert Passmore, and Mr. Percy L. Waterhouse, M.A.Cantab., all Associates of the Institute.

CONFERENCE OF ALLIED SOCIETIES AT LIVERPOOL.

Held at the University, on Friday, 21st April 1893.

A paragraph in the Report submitted to the Annual General Meeting held on the 1st inst. refers to a proposal to divide the United Kingdom into so-called architectural provinces, of which the local Societies now or hereafter allied to the Institute would be the respective centres, for the purpose mainly of promoting professional education by the establishment of fixed educational centres in various parts of Great Britain and Ireland. By a letter written to the executive officer of each of the thirteen Societies allied to the Institute, a general idea of the proposal was given as follows:—

London, 1st September 1892.

Dear Sir,—The Council have under consideration a scheme for dividing the United Kingdom into architectural provinces or districts, of which the Societies now or hereafter allied to the Royal Institute would be the respective centres; and the Council are desirous of receiving suggestions on the subject from the Allied Societies.

One object of thus dividing the United Kingdom is the promotion of architectural education, by the systematic organisation for educational purposes of such means of instruction as are at present available in the respective centres. The establishment of provinces or districts, properly defined, should assist the consolidation of the profession by bringing into harmonious and united action its scattered and unorganised members; while the individual position of such members would be greatly improved by their connection with the local representative body. The action of local bodies thus made representative of districts, and moving in combination with the Royal Institute, should tend to promote the well-being of the whole profession.

In defining and arranging the limits of provinces or districts it is thought that each should be important in respect of area and local influence; and that each should be represented by one strong Allied Society, the members of which should include all respectable and responsible architects practising within such province or district, the majority of whom, it is hoped, would in time become members also of the central chartered body.

I am to ask you to lay this proposal before your Council, and, in the event of their approving it, to designate an area over which the influence of your Society might be brought to bear, in such a way, however, as not to infringe upon the area which a neighbouring Allied Society may reasonably expect to embrace.

It is hoped that, at no distant date, every President of an Allied Society may have *ex officio* a seat on the Council of the Royal Institute, and possibly the rules of the Allied Societies may hereafter be so framed or modified that Fellowship of the Royal Institute shall be an indispensable qualification for office both as President and Vice-President.—I am, &c.,

(Signed) WILLIAM H. WHITE, *Secretary.*

A large number of replies, some of them containing definite suggestions, were received; and at length the Liverpool Society determined on convening in that city a Conference of delegates from the other non-Metropolitan allied bodies, and inviting at the same time such representatives of the Institute as the Council might designate. The Conference was fixed for Friday, the 21st ult., at half-past eleven a.m., and held at University College, Mr. Hartley [*F.*], Vice-President of the Liverpool Society, taking the chair, in the unavoidable absence from Liverpool of Mr. Harnett Harrisson, the President. Nine of the Allied Societies, including that of Liverpool, were represented at the Conference, namely:—

Birmingham Association	Mr. Herbert R. Lloyd [*A.*], Hon. Secretary.
Bristol Society	Mr. W. Edward Jones [*F.*], Hon. Secretary.
Leeds and Yorkshire Society	Mr. G. B. Bulmer [*F.*], President. Mr. William H. Thorp [*F.*].
Leicester and Leicestershire Society	Mr. S. Perkins Pick, Hon. Sec.
Liverpool Society	Mr. Hartley [*F.*], Vice-President. Mr. Alfred Culshaw [*F.*], Vice-President. Mr. Herbert Wm. Keef, Vice-President. Mr. Henry L. Beckwith, Hon. Secretary.
Manchester Society	Mr. E. Salomons [*F.*], President.
Nottingham Society	Mr. W. Arthur Heazell [*F.*], President.
Royal Institute of Ireland	Mr. Thos. Drew [*F.*], R.H.A., President. Mr. A. E. Murray [*F.*], Hon. Secretary.
Sheffield Society	Mr. Edwd. M. Gibbs [*F.*], Vice-President.

Besides the members above named of the Liverpool Society who attended the Conference, there were others present, including Mr. Charles Aldridge [*F.*], Mr. Berrington [*A.*], Mr. James Dod, and Mr. G. E. Grayson [*F.*]. The Royal Institute of British Architects was represented at the Conference by Mr. William Emerson, *Hon. Secretary*, Mr. Arthur Cates, *Past Vice-President*, and Mr. John Slater [*F.*], who were so designated by the Council in response to the invitation of the Liverpool Society. Messages were received from Societies not represented at the Conference, notably from Dundee, Glasgow, and Newcastle-on-Tyne, regretting inability to attend it.

Mr. Hartley, in his opening speech as Chairman of the Conference, said that the subject before them was a most important one for the rising generation of architects, for that hitherto pupils had been too much left to evolve their knowledge, both on the scientific and artistic sides of architecture, from their inner consciousness. He hoped that the Conference would have a practical issue, and that the Allied Societies would be able to assist the Institute in formulating a scheme which would result in their own benefit, in that of the rising generation and of the whole of the people of the United Kingdom, by bringing into existence a better type—a better educated class—of architect. Mr. Salomons followed with a speech, in which he urged that the system

of education now in force, under the guidance of the Institute, would be materially developed and improved by the centralising movement proposed—the division of the whole country into districts, with an Allied Society as the recognised centre of each district. Societies would thus be enabled to assist their members, for constant local disputes and difficulties arose, and it would be a great advantage to have a centre to which such disputes, with builders and others, could be referred. Mr. Salomons moved, and Mr. Culshaw seconded, a resolution, which was unanimously agreed to, as follows:—

> *That* this Conference of delegates from the provincial Architectural Societies in alliance with the Royal Institute of British Architects has heard with great satisfaction the proposal to divide the United Kingdom into architectural provinces, which, if successfully carried out, will materially advance the interests of the profession throughout the country.

A second resolution, moved by Mr. Bulmer and seconded by Mr. Murray, was unanimously passed, after a discussion on the present means and systems of professional education in Leeds, Manchester, Birmingham, Bristol, Sheffield, and other centres, as follows:—

> *That* by the establishment of such architectural provinces the Architectural Society of each district will have its local centre, and in time, by absorbing within its centre all architects of repute, bring into harmonious and united action the scattered and unorganised members of the profession; strengthen the position of all local practitioners, both professionally and socially; and enable arrangements to be made for extending throughout the country the advantages of the progressive examinations now established by the R.I.B.A., and by promoting a systematic organisation for educational purposes, utilising and developing such means of instruction as may be available at and in connection with such centres, raise the standard of architectural education in all parts.

The discussion which preceded the passing of the second resolution was most interesting, and Mr. Bulmer, in moving it, stated that, in his opinion, the views it expressed were those of a large majority of the members of the Leeds and Yorkshire Society, of which he is the President. Mr. Thorp followed with some well-considered remarks, and both Mr. Emerson and Mr. Slater spoke at some length on the subject. Mr. H. R. Lloyd, Mr. Drew, and Mr. Gibbs also spoke.

Mr. W. Arthur Heazell moved, and Mr. Perkins Pick seconded, a third resolution, which was warmly supported by the Chairman, and carried unanimously, as follows:—

> *That*, so far as the constitution of the R.I.B.A. and each Society may permit, it is desirable that the President for the time being of each provincial centre shall have a seat on the Council of the Institute; and that this Conference do represent to the Council the desirability of steps being taken to obtain such modification of By-law No. 25 as will enable this to be done.

The fourth and last resolution brought before the Conference, which was moved by Mr. W. Edward Jones, who made an important speech, was seconded by Mr. Gibbs, and carried unanimously, as follows:—

> *That* the secretaries of the several provincial Societies be requested to confer together to consider the boundaries of each province proposed to be attached to the respective centres, for the purpose of provisionally defining the same, and then communicating the same to the Royal Institute.

Before the proceedings closed, Mr. Emerson called upon the members to join in a cordial vote of thanks to Mr. Hartley for the admirable manner in which he had filled

the Chair, and also to the Liverpool Society for having brought to the front so very important a question. He congratulated the Society for being among the first to see the real and great value it would be to the architectural profession, and to the architecture of the future, if by some such comprehensive organisation as that suggested, they could elevate and improve the means of instruction open to the rising body of architects. Mr. Thomas Drew, who had crossed St. George's Channel to attend the Conference, and had therefore travelled further than most of his colleagues present, also thanked the members of the Liverpool Society for the hospitality and friendship they had shown to their guests, which, he added, would be remembered by the latter for a long time to come. Mr. Hartley, in his acknowledgment, expressed the great pleasure afforded to the Liverpool Society by the visit of delegates from so many of the Societies allied to the Institute, and of accredited representatives of the Institute itself.

The Conference of the 21st ult. was ushered in, on the previous evening, by a dinner given by the Liverpool Society at the Adelphi Hotel, when Mr. Hartley also presided. The guests included the Mayor of Liverpool (Mr. R. D. Holt), the President of the Liverpool Art Club (Dr. Edgar Brown), the City Engineer (Mr. H. P. Boulnois), with the delegates of the several Societies and the representatives of the Institute before named. After the usual loyal toasts came "The City and Trade of Liverpool," "The Royal Institute and Allied Societies," "The Building Trade," "Our Visitors," and "The Chair." The speeches, some of which are said to have been highly entertaining from a professional point of view, were not reported.

*** A full report of the Conference will be published in the next issue of *The R.I.B.A. Journal*, on the 18th inst.

REPORT OF THE COUNCIL FOR THE OFFICIAL YEAR.

To be submitted to the Annual General Meeting, 1st May 1893.

The Council, elected on the 13th June 1892, have held 21 Meetings; and since the publication of the last annual report on the 5th May 1892, 24 Meetings. The Professional Practice Committee of Council, the Finance Committee of Council, the Alliance Committee of Council, the Royal Gold Medal Committee of Council have met as usual; and the Rota Committees, composed of sections of the Council, have met periodically for the consideration of candidates' applications for membership.

During the official year 40 Fellows, 16 of whom were previously members in the class of Associates, and 57 Associates have been elected. Though these figures compare unfavourably with those of 1891–92, when 66 Fellows and 51 Associates were elected, the number of Fellows (in spite of severe losses by death) is now 623, as against 610, and the number of Associates 814, as against 794, at the corresponding period last year. One Hon. Associate, Mr. T. H. Wyatt (who had resigned in 1890), and one Hon. Corresponding Member, Professor Babcock (Cornell University, Ithaca, New York State), have also been elected.

His Grace the Duke of Devonshire, K.G., has been elected an Hon. Fellow.

At the opening Meeting of the current Session, Mr. William Emerson, a Member of Council, was elected Hon. Secretary, Mr. Aston Webb having resigned.

The losses by death in the class of Fellows have been:—Henry George Austin (Canterbury), William Allen Boulnois, Richard Herbert Carpenter, John Myrie Cory (Shanghai), Joseph Stretch Crowther (Alderley Edge, Cheshire), John Garrard Elgood (Manchester), James Fowler (Louth), John Gibson, Philip Herepath (New Zealand), Richard Smith Lander, Joseph Peacock, Thomas Stone, Alfred Strong, Thomas Tillman

(Sunderland), William Charles Tuke (Manchester), John Goldicutt Turner (Rickinghall, Diss), James Williams. In the class of Associates: George Canning Richardson (Llangollen, Wales). In the class of Hon. Associates: Matthew Wyatt (Winchfield, Hants). In the class of Hon. Corr. Members: George Snell (Boston, Mass.). In the class of Hon. Fellows: Walter Charles James, Lord Northbourne.

The Preliminary Examinations of November 1892 and March 1893 were held in London, Bristol, and Manchester, with the result that 169 gentlemen have been registered as Probationers. At the same time Intermediate Examinations of 54 Probationers were held in London, with the result that 34 Probationers have been registered as Students. There are now 532 Probationers and 75 Students on the respective registers. The Examination qualifying for candidature as Associate was held in London only last autumn, and it has been held this spring in London, Glasgow, Bristol, Leeds, Manchester, and Newcastle.

Statistics of these Examinations follow:—

THE PRELIMINARY EXAMINATION.

Dates	*Admitted*	*Not passed*	*Relegated for periods*	*Passed and Registered as Probationers*
November 1892.....	82 { 40 Exempted, 42 Examined }	2	5	75
March 1893	110 { 51 Exempted, 59 Examined }	—	16	94
—	192	2	21	169

THE INTERMEDIATE EXAMINATION.

Dates	*Probationers admitted*	*Not passed*	*Relegated for periods*	*Passed and Registered as Students*
November 1892.....	24	—	11	13
March 1893	30	—	9	21
—	54	—	20	34

THE EXAMINATION QUALIFYING FOR CANDIDATURE AS ASSOCIATE.

Dates	*Applied*	*Admitted*	*Not passed*	*Relegated for periods*	*Passed*
December 1892.....	50	36	—	24	12
April 1893	126	106*	—	58	42
—	176	142	—	82	54

* Six, out of the 106 applicants admitted, did not attend.

The Council desire to record their indebtedness to the officers and members of those Allied Societies under whose charge examinations have been conducted during the official year; and their obligation to the Chairman and members of the Board of Examiners in Architecture increases year by year. Except in the case of the Preliminary Examination, in which a professional examiner is now employed to set the questions and mark the answers in six out of the eight subjects, the work of the examiners is entirely honorary.

Without dwelling on the fact of the large increase in the number of applicants for admission to the several examinations, it may be interesting to note that during

the past official year there were 192 admitted to the Preliminary Examination against 146 during the preceding year, and 142 admitted to the Examination qualifying for candidature as Associate, the number in 1891–92 having been 121.

The Ashpitel Prize was awarded to Mr. Alfred C. Houston [*A.*], as having most highly distinguished himself among the 61 candidates who passed the qualifying examination in 1892. An additional prize (value five guineas) was awarded, on the recommendation of the Board of Examiners, to Mr. Harold Brakspear [*A.*].

A Statutory Examination for Certificates of Competency to act as District Surveyor in London was held last October, when five gentlemen presented themselves, one of whom—Mr. Watson Hall—passed and received his certificate. Another examination was held at the end of April, when five gentlemen presented themselves, two of whom —Mr. Albert William Cleaver [*A.*] and Mr. Reginald Molesworth Gruggen [*A.*]— passed, and Certificates of Competency to act as District Surveyor in London have been granted to them.

The Institute of New South Wales, established at Sydney in the year 1871, and incorporated in 1890 under the Companies Act, has been admitted to alliance with the Royal Institute of British Architects [see *infra*, pp. 333–37].

The Royal Gold Medal (1892) for the promotion of architecture was presented to Monsieur César Daly, *Hon. Corr. Member* (Paris), for his literary works in connection with architecture, and acknowledged by him in an eloquent speech delivered in English at a General Meeting of the Institute, held on the 27th June 1892. The award of the Royal Gold Medal for 1893, to Mr. Richard M. Hunt, *Hon. Corr. Member* (New York), for his executed works as an architect, recommended by a Resolution of the Institute passed on the 13th March 1893, has been approved by Her Majesty the Queen.

The works submitted this year for the Prizes and Studentships have been exceptionally numerous, and generally excellent in quality. The annual deed of award was presented to the General Meeting of the 9th January last, and at the presentation of prizes on the 16th of the same month an Address to Students on "Some Responsi- "bilities of the Architect" was delivered by the President, and a "Review of the "Students' Works" by the Hon. Secretary, Mr. Wm. Emerson. The exhibition of the drawings included a selection from the "Testimonies of Study" sent in by Probationers applying to be admitted to the Intermediate Examination.

The drawings forwarded to Allied Societies consisted of 21 strainers (double elephant) and 24 mounts (half double elephant), being selections from the measured drawings of Glasgow Cathedral Crypt by Mr. G. S. Hill, to whom the Silver Medal (drawings) was awarded; from the Design for a Railway Station by Mr. A. T. Bolton, to whom the Soane Medallion was awarded; from the measured drawings and sketches by Mr. J. J. Joass and Mr. A. H. Powell, who gained the Pugin and Owen Jones Travelling Studentships respectively; from the Design for the East End of a Town Church by Mr. C. A. Nicholson, to whom the Tite Prize was awarded; and also of drawings by Mr. T. A. Sladdin and Mr. Harold Brakspear, who were awarded a second and third prize respectively in connection with the Pugin Studentship. The "Testimonies of "Study" forwarded with the before-mentioned drawings were those of Mr. A. E. Corbett, Mr. H. W. Coussens, Mr. E. R. O. Davis, and Mr. A. R. Hennell, *Students R.I.B.A.*, six drawings of each. All these have been exhibited at Newcastle, Sheffield, Manchester, Liverpool, Glasgow, Dundee, Leeds, Nottingham, Leicester, and Exeter, under the charge of the Allied Societies located in those centres, a period of about a week having been allowed to each Society.

Not the least interesting event of the official year was the exhibition of the drawings of Palladio, Inigo Jones, Kent, and others, lent to the Institute by the Duke of Devonshire, and forming part of the famous collection made by the great Earl of Burlington. The portfolios containing the drawings of Palladio and others have been

returned to the Duke, but the four boxes containing the drawings of Inigo Jones and others are still retained, by his Grace's request.

The amended Paper of Suggestions for the Conduct of Competitions, considered and adopted by the Institute at a General Meeting held in March 1892, was issued to Members last June, after it had been finally revised by the Council.

A Bill introduced into the House of Commons last session, intituled "A Bill to "empower the City and South London Railway Company to make an underground "railway to Islington, and for other purposes," menaced the removal of the Church of St. Mary Woolnoth, which was scheduled with the apparent intention of being acquired for the purposes of a railway station. The Council petitioned against the Bill as it stood, and they believe that the proposal to remove the Church has not been proceeded with.

Attention having been invited to an application made to the Privy Council by the Sanitary Institute, which is incorporated under the Companies Act, for the grant of a Royal Charter, the Council formulated objections to the extensive powers thus sought to be obtained; and a suggestion offered to the Sanitary Institute, that certain clauses of its draft charter should be modified so as to confine its examinations to matters of sanitary knowledge, was accepted by the authorities of that Institute. No further opposition was consequently offered by the Council to the grant of the Charter sought for.

By the courtesy of the London County Council the By-laws proposed to be made by that body under the Public Health (London) Act, 1891, have been considered and reported on by the Practice Standing Committee of the Institute; and the Report having been adopted by the Council, the same was duly forwarded as a series of suggestions for submission to the London Council.

The Appellate Tribunal, to which the Council of the Institute nominate a member, under the provisions of the London Council (General Powers) Act, 1890, is reported to have heard and determined fifteen appeals, which have resulted in the confirmation of nine of the Superintending Architects' certificates appealed against, and of the varying of six others. The tribunal consists of Dr. Longstaff, appointed by the London Council; Mr. Arthur Cates, appointed by the Council of the Institute; and Mr. C. J. Shoppee, appointed by the Council of the Surveyors' Institution; and Mr. Cates is the elected chairman.

The Council have had under consideration a proposal by Mr. Cates to divide the United Kingdom into so-called architectural provinces, of which the Societies now or hereafter allied to the Institute would be the respective centres; and they have conferred with the Allied Societies on this proposal and the manner in which it may be carried out, with a view to promoting, in Great Britain and Ireland, a comprehensive educational organisation, of which the Institute would be the head. In connection with this subject, the expediency of extending the limit of the number of Presidents of Allied Societies who may sit on the Council, now restricted to nine, has been also considered, and the opinions thereon of the respective Societies have been asked for. Several suggestions have accompanied the replies forwarded by the Allied Societies, and the subject was discussed in Liverpool on the 21st ult., at a Conference at which representatives from several non-Metropolitan centres attended, and at which the Institute was represented by Mr. Emerson, supported by Mr. Cates and Mr. Slater. The fact that this Conference discussed the educational results which might possibly be achieved under the auspices of each Allied Society at the centres respectively of the projected architectural provinces, rendered the gathering at Liverpool more than ordinarily interesting [see pp. 310–13 *ante*].

At the beginning of the current Session the Council took into consideration the desirability of memorialising the Royal Commission now sitting, and known as the Gresham University Commission, on the subject of the place to be given to Architecture

in the scheme of a Teaching University for London; and the President, on behalf of the Council, addressed the Commission as follows:—

21*st November* 1892.

My Lords and Gentlemen,

On behalf of the Council of the Royal Institute of British Architects, I beg leave to ask that in any scheme for the establishment, under charter, of an efficient Teaching University for London, a definite and distinct place may be assigned to Architecture.

In assigning such position, it should be realised that Architecture is both an art and a science, and that it is impossible to divorce its artistic from its scientific attributes. Design in Architecture embraces not only the artistic arrangement of elevations, both external and internal, and the distribution of the whole plan, but also the scientific construction of an edifice.

The curricula established in London by the Architectural Association, and by King's and University Colleges—as well as the programmes of the Progressive Examinations of the Royal Institute of British Architects—demonstrate the comprehensive character of Architecture; while the experience of those of other great cities, both in Europe and America, shows that the idea of such comprehensiveness is neither exaggerated nor new.

The Examination programmes to which I refer are given on pp. 195–218 of *The R.I.B.A. Kalendar* [1892–93], and the course or curriculum of the Architectural Association (London) is also given on pp. 141–146 of the same work.

I beg leave to add that, should the Royal Commission desire it, the Council of the Royal Institute of British Architects will be happy to afford any assistance that may be in their power towards defining the place which Architecture should occupy in any scheme for a new Teaching University.

I have the honour to remain, My Lords and Gentlemen, Your obedient servant,

J. Macvicar Anderson, *President.*

The reply received from the Secretary of the Royal Commission—Mr. J. Leybourn Goddard—stated that the Commission would hear evidence on the subject from members designated for the purpose; and, at the request of the Council, the President and the Hon. Secretary, with Mr. Cates and Mr. Slater, attended a meeting of the Gresham University Commission and gave evidence accordingly.

Certain observations which were made by Lord Chief Justice Coleridge in summing up the case of "Burr *v.* Ridout," tried on the 21st February last—which appeared to injuriously reflect upon the objects of the Institute, and to give an erroneous view of its Schedule of Professional Practice and Charges—were brought to the notice of the Council; and a letter addressed to his Lordship by the President has elicited an expression of regret which the Council have received with much satisfaction. The correspondence was published, with Lord Coleridge's consent, in the *Journal* issued to members on the 30th March [see pp. 279–80 *ante*].

Two important constitutional matters have occupied the serious attention of the Council during the greater part of the official year, namely (1) the method of admitting and electing Fellows, and (2) their qualifications.

The solution of the first question was facilitated by the work of a Special Committee appointed pursuant to a Resolution of the Institute passed at the Annual General Meeting of 1891. The Report of this Committee, which was appointed to consider the provisions of By-law 9, having been adopted by the General Meeting of the 13th June 1892, the Council were then requested to prepare modifications of By-law 9 in accordance therewith, and to take the steps necessary to obtain the desired alterations. It was found, while considering the provisions of By-law 9 and the best means of modifying them, that other By-laws would be affected by the proposed modifications, based as they were on the clauses of the Report adopted by the Institute and referred back to the Council to carry out. A revision of By-laws 7, 8, and 9 became necessary, and these By-laws as proposed to be altered were submitted to the Institute on the 27th March, when the alterations were approved with but a slight amendment, and adopted. Certain Regulations made by the Council to carry out the altered By-laws 7 and 9 were submitted at the same time and confirmed by Resolution of the Institute. The alterations, as adopted, of By-laws 7, 8, and 9 were confirmed by a Special General Meeting held on the 17th ult.

The solution of the second question was more difficult. Pursuant to the instruction of a General Meeting of the Institute held on the 11th July 1892, the Council took into consideration the whole matter of the qualifications for Fellowship, and submitted their Report to the Institute at the General Meeting of the 27th March. A portion of that Report, containing a Regulation to carry into effect the Charter and By-laws concerning the qualifications of applicants for Fellowship, which the Council unanimously recommended for adoption, was approved by the Institute; and the Regulation was confirmed by Resolution. The latter portion, however, containing a Declaration under Section 3 of the Charter, as to the advisability of making which the Council were divided in opinion, was, after discussion by the General Meeting, withdrawn.

The report of the whole proceedings relating to the altered By-laws and the Regulations to carry them into effect, and also to the Council Report on the Qualifications of Fellows, appeared in *The R.I.B.A. Journal* of the 30th March, and was issued to members on that day. The same number contained the Memorials presented to the Council on the subjects above-mentioned.

A Bill to provide for the compulsory legal registration of Architects was read a first time in the House of Commons on the 7th March 1893, and the second reading is fixed for Wednesday the 10th May next. The Bill, which provides that the examination qualifying for registration shall be one held by the Royal Institute of British Architects (or, under certain circumstances, another body appointed by the Privy Council), is not in any way promoted or supported by the Council, whose intention to petition against it will be carried out in the event of the Bill proceeding.

The Art Standing Committee report that they have held 8 meetings since their election in June 1892, making since the issue of the last Report 9 in all. The functions and scope of the Committee having been defined more precisely than heretofore by the Council, the Committee feel confident they may in future be able to report more satisfactory results of their labours. Subjects connected with London improvements have occupied much time of the Committee. The various authorities concerned with the reconstruction of Chertsey, Richmond, and Kew Bridges have been approached, and in respect to the two first satisfactory assurances obtained. The Committee also recommended that the Council should address the London Council upon the importance of the new Vauxhall Bridge being built entirely of stone, and advising that measures be taken by the London Council to obtain a design worthy to rank with London and Waterloo Bridges. The Council acted upon this recommendation, but have not received a satisfactory reply. Lincoln Cathedral Library and Cloisters, Emanuel Hospital, The Rolls Chapel, the Wellington Monument, street lamps, and Holy Trinity Church, Clapham Common, each received consideration from the Committee. The Committee strongly recommended the adoption of the proposal, then under consideration by the Council, that candidates for Fellowship should submit drawings and photographs of their executed works.

Two Ordinary General Meetings were arranged by the Committee: the first on the subject of London Improvements, and the second on "Terra-Cotta." At the latter, three Papers were read and some excellent specimens of the material were exhibited.

The Committee appointed Mr. Alfred Waterhouse, Chairman, and Mr. R. Herbert Carpenter, since deceased, Vice-Chairman. They also appointed Mr. W. D. Caröe and Mr. Edward W. Mountford Hon. Secretaries.

The Literature Standing Committee report that they have held 7 meetings since their election in June 1892, making since the issue of the last Report 8 meetings in all. The Sessional Papers arranged for and read during the official year are:—

May 16th 1892. The Internal Illumination of Buildings, by Mr. W. H. Preece, F.R.S.

May 30th. Castings in Metal, by Mr. Alexander Graham, F.S.A. [*F.*], Mr. C. Krall, Mr. H. Longden, and Mr. W. Herbert Singer.

November 21st. Picture Gallery Decoration, by Mr. J. D. Crace [*H.A.*].
December 5th. Some Problems of Town and City Development, by Mr. William C. Street [*F.*].
December 19th. The Hypæthral Temple, by Dr. W. Dörpfeld [*Hon. Corr. Member*].
January 9th 1893. Tours in Spain and Majorca, by Mr. A. N. Prentice [*A.*].
January 30th. The Advantages of Adopting a General Scheme in Making Improvements to London Streets, by Mr. Arthur Cawston [*A.*].
February 13th. The Cathedral of Palma, by Col. Lenox Prendergast [*H.A.*].
February 27th. Terra-Cotta, by Mr. E. Ingress Bell [*A.*], Mr. S. H. Leech, and Mr. Leonard Stokes [*F.*].
April 17th. Examination of Building Stones, by Mr. H. W. Burrows [*A.*].

The R.I.B.A. Journal of 1891–92 (Vol. VIII.) contained 436 pages, with a few illustrations in the text; and thirteen numbers of Vol. IX. have been published, in which the following leading articles have appeared :—

The Architectural Association Curriculum, by Mr. Fred. R. Farrow [*F.*].
The Horse Guards, by Mr. Wyatt Papworth [*F.*].
The Massachusetts Curriculum, by Mr. William H. White [*F.*].
Somerset House, by Mr. Wyatt Papworth [*F.*].
Mud Architecture, by Mr. Wm. Simpson, R.I. [*H.A.*].
The Nature of the Associates' Examination, by Mr. Paul Waterhouse, M.A. Oxon. [*A.*].
The Godwin Bursary 1892, by Mr. E. P. Loftus Brock, F.S.A. [*F.*]
Progressive Tests of Progress, by Mr. Paul Waterhouse, M.A. Oxon. [*A.*].
The Dome of SS. Sergius and Bacchus, Constantinople, by Mr. R. Phené Spiers, F.S.A. [*F.*].
The London Council Appellate Tribunal.

In addition to these, the President's Opening Address and his Address to Students; the Hon. Secretary's criticism of the Students' work; various Addresses delivered to other Architectural Societies, and other articles, have appeared. A special feature has been made, as in past years, of reviews and notices of new books presented to, or acquired by, the Library; and the Committee desire to tender their thanks to all the contributors who have assisted them in these different branches. The Legal and Parliamentary Notes which have appeared in many numbers of *The R.I.B.A. Journal* form valuable records of recent decisions on a variety of professional matters.

The annual volume of Transactions (VIII. New Series) contained 434 printed pages and 180 illustrations in the text, and a frontispiece portrait of Professor Donaldson, President 1863–65.

The Committee have at the present time under their consideration, as a reference from the Council, a scheme for amalgamating the Transactions with *The R.I.B.A. Journal*, the general principles of which have been approved by the Council; and in view of the suggested alteration in the publications of the Institute and the necessity thereby created for receiving Sessional Papers in their complete form at least four weeks before they are read at a General Meeting, the Committee have already in their hands the MSS. of some Papers for the next Session, and have promises of several others.

In reference to the elimination from the Library of such books as do not fulfil the objects of an architectural library, the present Committee have continued the work inaugurated in the previous Session, and several volumes have been removed. An important increase has been thereby made in available shelf-room, while, in addition, new cases have been fitted up, from the designs of Mr. Aston Webb, in the old Council Room.

The Committee appointed Professor Aitchison Chairman, and Mr. Alex. Graham Vice-Chairman. They also appointed Mr. R. Elsey Smith and Mr. A. S. Flower Hon. Secretaries.

The Librarian's Report to the Literature Standing Committee is as follows :—

During the twelve months elapsed from 1st April 1892 to 31st March of the present year, the total additions to the Library amounted to 169 volumes and 152 pamphlets, and to the Loan Collection 67 volumes and 4 pamphlets, exclusive of periodicals, reports and transactions of societies, and parts of works issued in a serial form.

The number of volumes presented to the Library was 107, and to the Loan Collection 5.

Of pamphlets, 151 were presented to the Library.

Of drawings, engravings, and photographs, 72 sheets were presented, exclusive of the "Sketch "Book" of the Architectural Association.

There was also presented a medal struck by the Corporation of the City of London.

The works purchased comprise 62 volumes and 1 pamphlet for the Library and 4 volumes for the Loan Collection, together with several parliamentary papers.

The walls of the old Council Room have now been fully fitted with book-cases.

Appendix A shows the expenditure of the Library in 1892.

The attendances of readers in the Library numbered 2642, details whereof are given in Appendix B (last year 3482).*

The number of tickets (exclusive of renewals) issued for admission to the use of the Library and Loan Collection was 98 (last year 107).

The number of volumes issued on loan was 917 (last year 1131). The names of the works chiefly in demand, and the number of issues per volume, are given in Appendix C.

The attendances of members of the Architectural Association as readers in the Library were 79 (last year 280), and the number of issues on loan (both these items being included in the gross returns above given) was 61 (last year 86).*

Appendix A.—Library Expenditure 1892.

	£	s.	d.		£	s.	d.
Purchase of Books	48	17	8	Printing	7	8	6
Binding	37	11	8	Petty Disbursements	3	1	9
Periodicals	8	10	5				
Stationery	2	15	2	Total	£108	5	2

Appendix B.—Readers in Library from 1st April 1892 to 31st March 1893.

Date.	Day Attendances. 10 a.m. to 5 p.m.						Evening Attendances. 5 p.m. to 9 p.m.					
	Members.		Non-members.		Totals.	Number of days Library was open.	Members.		Non-members.		Totals.	Number of evenings Library was open.
	Library.	Periodicals only.	Library.	Periodicals only.			Library.	Periodicals only.	Library.	Periodicals only.		
1892.												
April . .	50	11	66	6	133	23	21	3	32	9	65	18
May . . .	62	7	57	10	136	26	29	4	32	8	73	22
June . . .	94	9	53	4	160	25	39	7	50	5	101	21
July . . .	64	6	28	5	103	26	30	4	41	11	86	21
August . .	51	4	35	4	94	26	26	8	27	8	69	22
September.	46	19	33	16	114	26	26	12	17	9	64	22
October. .	70	9	76	10	165	26	23	5	46	6	80	21
November.	69	15	133	22	239	26	21	4	54	11	90	22
December.	51	15	55	33	154	25	11	13	24	13	61	22
1893.												
January .	41	21	78	40	180	26	8	7	33	10	58	22
February .	28	27	52	31	138	24	15	9	30	15	69	20
March . .	41	22	51	25	139	26	13	5	35	18	71	21
Totals .	667	165	597	206	1755	305	262	81	421	123	887	254

* The falling off in the attendances of readers in the Library, and in the issues of books from the Loan Collection, is mainly attributable to the removal of the Architectural Association to Great Marlborough Street. The young men who formerly worked in the rooms of the Institute now use the Studio, &c., and attend the classes, of the Association at its new headquarters.

APPENDIX C.—Books issued on Loan, 1st April 1892 to 31st March 1893, and the No. of issues per volume in circulation.

(No account is taken of books issued less than 5 times per volume.)

	VOLS.
13 issues per vol.	
Gwilt. Encyclopædia	1
12 issues per vol.	
Middleton. House Drainage	1
11 issues per vol.	
Fergusson. History	6
10 issues per vol.	
Seddon's Builders' Work	1
Mauch. Orders	2
Pewtner. Specifier	1
Fergusson. Handbook	1
Spiers. Orders	1
Stuart & Revett. Athens	1
9 issues per vol.	
Rickman. Gothic	2

	VOLS.
9 issues per vol. (cont.)	
Denton. Sanitary Eng.	1
Brandon's Analysis	2
Hellyer. Plumber and Sanit.	2
Knight. Bye-laws	1
8 issues per vol.	
Paley. Gothic Mouldings	1
Nevill. Old Cottages	1
Robson. School Arch.	2
Stock. Shoring	2
7 issues per vol.	
Freeman. History	1
Brandon. Timber Roofs	1
Colling. Goth. Ornaments	2
6 issues per vol.	
Stevenson. House Arch.	2

	VOLS.
6 issues per vol. (cont.)	
Scott. Lectures	4
Smith. Acoustics	1
R.I.B.A. Select. Pap. Vol. 13	1
Smith & Slater. Classic	2
Denton. House Sanitation	2
Ruskin. Seven Lamps	1
5 issues per vol.	
Notes on Bdg. Construction	12
Choisy. L'Art Byzantin	1
Rosengarten. Styles	2
Davidson. Perspective	1
Smith. Gothic & Renaissance	2
Leaning. Quantity Surveying	2
Baker. Surveying	1
Fergusson. Mod. History	1
Parker. Glossary	1
Mitchell. Bdg. Construction	1
De Chaumont. Habitation	1
Street. Brick & Marble Arch.	2

The Practice Standing Committee report that they have held 3 meetings since their election in June 1892; and a Sub-Committee delegated for the purpose have also had two conferences with representatives of the Institute of Builders on the subject of the Conditions of Contract. The result of these conferences was embodied in a reprint of the Conditions, which, after adoption by the Committee, was submitted to the Council; and is still under consideration.

The Committee have also given careful consideration to the By-laws proposed to be made by the London Council under the Public Health (London) Act 1891, and have reported to the Council, with suggestions for several alterations, giving the reasons for such suggestions.

The Committee appointed Mr. Henry Currey Chairman, and Mr. Arthur Cates Vice-Chairman. They also appointed Mr. Thomas M. Rickman and Mr. Edwin T. Hall Hon. Secretaries.

The Science Standing Committee report that they have held 8 meetings since their election in June 1892, which have been attended, on the average, by 12 members. The subject of Electric Lighting, referred to in the last Report, was brought before the Institute at a General Meeting on the 16th May 1892, when Mr. W. H. Preece, F.R.S., read a Paper, and several fittings for domestic buildings were exhibited. Certain books referred to the Committee have been reviewed by members, and the reviews have appeared from time to time in *The R.I.B.A. Journal*. The desirability of a code of sanitary regulations for the entire United Kingdom was considered by the Committee, but, the subject belonging more exclusively to the Local Government Board, the Committee did not see their way to move in the matter. The general principles of the Report of the Committee on Light and Air were adopted at the Business Meeting of the 13th March 1893; and, the reconsideration of details being now proceeded with, the Committee hope to report again to the Council at an early date. The Committee have had their attention directed to several inventions and new materials for building construction, but considered none of them of sufficient importance to demand a special report. A Paper on the subject of the Development of Great Cities, written by Mr. William C. Street, was arranged for by the Committee, and delivered by the author on the 5th December last; and another Paper on the Examination of

Building Stones, brought before the Committee by Mr. H. W. Burrows, was read by him before the General Meeting of the 17th April.

The Committee appointed Mr. Lewis Angell Chairman, and Mr. P. Gordon Smith Vice-Chairman. They also appointed Mr. William C. Street and Mr. H. D. Searles-Wood Hon. Secretaries.

FINANCE REPORT.

Early in the official year the Council obtained the assistance of a professional Accountant, with a view to simplifying the accounts and amending the form of balance-sheets annually issued; and they received from him a report, on which they have advantageously acted. From the 2nd January 1893 a less complicated system of book-keeping than was hitherto employed in the Secretary's office has been in use; and a re-valuation of the Institute property has been made by Mr. Wyatt Papworth and Mr. T. M. Rickman. The Accounts of Income and Expenditure, and the Balance Sheets of the year ended 31st December 1892, have been prepared under the advice and with the assistance of Mr. Saffery, Chartered Accountant, before referred to; and he has also advised as to the best means of meeting the deficit of about £1,600 which may be anticipated at the close of the current year 1893.

This deficit was foreshadowed in the last Report, when an account of exceptional disbursements during 1890, 1891, and part of 1892, was presented. A further statement for the years 1890 to 1893, both inclusive, here follows:—

Exceptional Receipts.

	£	s.	d.	£	s.	d.
Sale in 1892 of Consols (authorised in 1890) .	973	2	0			
Received on conversion of Consols in 1888 .	10	3	9			
				983	5	9
Paid from Ordinary Income and Entrance Fees 1890-93 (Part Estimate)	1,001	9	3			
Anticipated deficit 31st December 1893 . .	1,602	12	6			
				2,604	1	9
				£3,587	7	6

Exceptional Disbursements.

	£	s.	d.	£	s.	d.
Purchase of Architectural Union Co.'s Shares	1,146	15	0			
Purchase of 2¾ per cent. Consols	10	0	9			
				1,156	15	9
Messrs. Cubitt & Co. .	1,598	11	6			
Fittings, Furniture, &c.	764	2	6			
Legal Expenses . . .	46	17	6			
Interest on Loans . .	21	0	3			
				2,430	11	9
				£3,587	7	6

It will thus be seen that the sum of about £2,600 has been expended during the four years 1890-93 on exceptional items—in other words, in the purchase of Architectural Union Co.'s Shares, in building, fittings, furniture, &c.—over and above the amount acquired from the sale of stock authorised in 1890. Of this sum an amount of about £1,000 has been paid from ordinary income and entrance fees, during the four years alluded to; and the balance of about £1,600 still remains unprovided for.

The Council, therefore, on the recommendation of their Finance Committee, propose to sell stock to the amount of about £1,300, to meet the greater part of the anticipated deficit, and to leave accounts to the value of about £300 outstanding—the same to be paid out of the balance of receipts over disbursements in 1894.

The large sum annually spent, for several years, upon the new series of TRANSACTIONS, has not escaped the attention of the Council. They are of opinion that it may be considerably reduced, without seriously curtailing the amount of information now published by the Institute. To this end they appointed a Committee of their body, to consider the points raised by the President in the Address he delivered at the opening Meeting of the present Session, when treating of *The R.I.B.A. Journal* published fortnightly, and the annual volume of TRANSACTIONS; and to report upon the whole

question. The Committee found that the net cost of the two separate publications—the *Journal* and the TRANSACTIONS for the two years 1891 and 1892—was in round numbers £2,750; and, after careful consideration, they reported that were the annual volume of TRANSACTIONS to be merged into the fortnightly *Journal*, the latter might be published at a net cost of about £1,750 for two years; this estimate including a sum for additional assistance in preparing the *Journal* for publication. An annual saving of £500 would thus accrue; and the Council are so convinced of the necessity of effecting such an economy, that they earnestly recommend the Institute to allow the proposal to take effect at once. Several of the Papers read at the General Meetings of the current Session have already appeared in full, with illustrations, or in comprehensive abstract, in the *Journal*; and other Papers read during the Session of which short abstracts only have appeared can be published in full in the remaining issues for 1892–93. Under these circumstances the Council have decided not to print a volume of TRANSACTIONS this year, and they confidently advise the Institute to allow that publication to terminate with the volume last issued, which was the eighth of the new series.

Should this meet with approval, the first number of the enlarged *Journal* can be published at the opening of the next Session, and continue periodically, giving the full Paper read at a General Meeting, with the necessary illustrations and the discussion upon it; the issue to take place on the Thursday following such Meeting.

If the outlay required for a volume of TRANSACTIONS be excluded, the receipts for 1893 may be expected to show a margin of between £600 and £700 in excess of disbursements; but it should be clearly understood that that balance has been already appropriated to partly paying off the exceptional expenditure of the last four years, 1890–93. The estimate for 1893, exclusive of the volume of TRANSACTIONS, is as follows :—

Estimate of Receipts and Disbursements of Ordinary Funds for the Year 1893.

Estimated Receipts.	£	s.	d.
Balance in Bank, 31st December 1892	367	2	7
Subscriptions (including Arrears)	4,100	0	0
Entrance Fees	350	0	0
Dividends	225	0	0
Sales, and Advertisements in *Journal*	300	0	0
Use of Rooms	30	0	0
Examination Fees	350	0	0
£	5,722	2	7

Estimated Disbursements.	£	s.	d.
Rent, Lighting, and Coals	875	0	0
Salaries and Extra Assistance	1,170	0	0
General Printing, Stationery, Binding, Stamps, and Petty Expenses	625	0	0
Expenses of General Meetings	190	0	0
Housekeeping Expenses	170	0	0
Advertisements in Newspapers	60	0	0
Examination Expenses	200	0	0
Furniture and Repairs	90	0	0
Fire Insurance	15	0	0
Medals and other Prizes	145	0	0
Grant to Library	100	0	0
Grant to Architectural Association	100	0	0
The R.I.B.A. Kalendar	152	0	0
The R.I.B.A. Journal (Vol. IX.)	850	0	0
Contributions to Allied Societies	200	0	0
Legal and other Expenses	120	0	0
Balance, 31st December 1893	660	2	7
£	5,722	2	7

The sum of £350 for entrance fees in the above estimate necessarily goes towards making up the estimated balance of £660. 2*s*. 7*d*., the whole of which is absorbed in part payment of exceptional expenditure during 1890–93 (four years). As a rule the entrance fees of Fellows and Associates are invested, and between the years 1880 and 1890 such entrance fees were periodically transferred to the capital account and invested. On the 31st December 1890 [see Vol. VII., p. 296], the entrance fees then uninvested amounted to £17. 9*s*. 6*d*., which sum and the sum of £844. 4*s*. received as entrance fees in the two years 1891 and 1892, have been devoted to the exceptional expenditure above referred to. In 1894 it will be possible to revert to the old system, and at once transfer the entrance fees received during that year to the Capital Account for Investment.

The Income and Expenditure Account and the Balance Sheet of Ordinary Funds for the year ended 31st December 1892 are here submitted :—

Income and Expenditure Account of Ordinary Funds for the Year ended 31st December 1892.

Dr. EXPENDITURE (15 months).

To ORDINARY EXPENDITURE :—	£	s.	d.	£	s.	d.
Rent	760	0	0			
Gas and Electric Lighting	78	2	3			
Coals	31	16	9			
	869	19	0			
Outstanding extra 3 months'	40	8	3			
				910	7	3
Salaries and Extra Assistance	1153	8	6			
Outstanding extra 3 months'	8	9	7			
				1161	18	1
General Printing, Stationery, Binding, Postage Stamps, and Petty Expenses	593	13	7			
Outstanding extra 3 months'	143	13	0			
				737	6	7
Expenses of General Meetings and Exhibitions	169	10	1			
Outstanding extra 3 months'	6	16	0			
				176	6	1
Housekeeping Expenses				168	14	0
Advertisements in Newspapers	90	12	5			
Outstanding extra 3 months'	3	1	6			
				93	13	11
Examination Expenses—						
Metropolitan Building Act and Local Acts	12	0	0			
Preliminary Examination	31	18	11			
Intermediate Examination	2	14	8			
Examination in Architecture	113	13	3			
	160	6	10			
Outstanding extra 3 months'	34	14	6			
				195	1	4
Furniture and General Repairs	106	1	8			
Outstanding extra 3 months'	5	13	4			
				111	15	0
Fire Insurance				14	5	0
Medals and other Prizes				113	9	0
Grant to Library				100	0	0
Grant to Architectural Association Educational Scheme				100	0	0
The R.I.B.A. Journal (20 numbers)—						
Reporting	53	11	0			
Printing	431	2	1			
Illustrations	3	1	0			
Stamps and Addressing	164	17	6			
	652	11	7			
Outstanding extra 3 months'	180	1	4			
				832	12	11
The Volume of *Transactions* (VIII. N.S.)—						
Printing	457	15	0			
Illustrations	235	3	6			
Binding	67	2	6			
Postage, &c. (Vol. VII.)	91	9	4			
	851	10	4			
Outstanding extra 3 months'	82	9	4			
				933	19	8
Printing and Postage of Kalendar for 1891-92	132	2	9			
Ditto for 1892-93 (outstanding)	153	7	9			
				285	10	6
Contributions to Allied Societies				175	16	6
Legal Expenses				36	18	0
			£	6147	13	10

INCOME (12 months). **Cr.**

By ORDINARY INCOME :—	£	s.	d.	£	s.	d.
Subscriptions—						
Fellows	2371	19	0			
Ditto, Arrears	8	8	0			
Associates	1587	12	0			
Ditto, Arrears	51	7	0			
Hon. Associates	110	12	0			
Ditto, Arrears	2	2	0			
				4162	0	0
Dividends on Stock and Shares				226	17	4
Advertisements in *The R.I.B.A. Journal*	225	19	1			
Sale of Papers, &c.	147	12	2			
Binding *Transactions*	15	14	6			
				389	5	9
Use of Rooms—						
District Surveyors' Association	25	0	0			
Architectural Association	6	10	0			
				31	10	0
Examination Fees—						
Metropolitan Building Act and Local Acts	43	1	0			
Preliminary Examination	163	16	0			
Intermediate Examination	86	2	0			
				292	19	0
By Balance (Deficit) carried to Accumulated Fund (see Balance Sheet)				1045	1	9
			£	6147	13	10

Examined with the Vouchers and found correct—
(*Signed*) LEWIS ANGELL, WM. WOODWARD } *Auditors.*
24th March 1893.

Balance Sheet of Ordinary Funds, 31st December 1892.

Dr.	£	s.	d.	£	s.	d.
To Sundry Creditors	658	14	7			
Library Fittings in progress (estimated)	100	0	0			
Temporary Loan from Bankers (since repaid)	1400	0	0			
Examination in Architecture. Fees anticipatory of election	75	12	0			
				2234	6	7
To Subscriptions received in advance for 1893				141	18	0
To Accumulated Fund..... £10689 19 3						
Deduct excess of expenditure over income for the year ending 31st December 1892..... 1045 1 9						
	9644	17	6			
Add entrance fees received from Fellows and Associates since 1880 to 31st December 1891 (ordered by the Council to be capitalised) 3880 18 0						
Ditto, ditto, received in 1892 ..... 445 4 0						
	4326	2	0			
				13970	19	6
			£	16350	4	1

Cr.	£	s.	d.	£	s.	d.
By Cash at Bankers'				367	2	7
By Investments :—						
£2310. 3s. 9d. 2¾ per Cent. Consols	2206	18	0			
202 Shares in the Architectural Union Company	2828	0	0			
				5034	18	0
By Property :—						
Lease of 9 Conduit Street, as per valuation	1364	1	6			
Furniture, Fixtures, and Fittings, ditto	2500	0	0			
Printed Books and MSS., ditto	3700	0	0			
Oil Paintings, ditto	1800	0	0			
Lithographs, Prints, and Photos, ditto	400	0	0			
Water-colour, Sepia, and Pencil Drawings, ditto	600	0	0			
Models, Plaster Busts and Casts, ditto	140	0	0			
Marble Busts, ditto	150	0	0			
				10654	1	6
By Subscriptions in Arrear				294	2	0
			£	16350	4	1

Examined with the Vouchers and found correct—
(*Signed*) LEWIS ANGELL } *Auditors.*
WM. WOODWARD } 28th April 1893.

With respect to the Income and Expenditure Account of Ordinary Funds for the year ended 31st December 1892, prepared by Mr. Saffery, it is necessary to state the reason why, against an income account of twelve months, there is shown an account of expenditure for fifteen months. It has hitherto been the custom to render, each year, the account of annual receipts from the 1st January to the 31st December, and the account of a great part of the annual expenditure, more particularly that for the Institute publications, which represent the work of a Session (beginning 1st October in one year and ending 30th September in the next year), from Session to Session. But the Council, acting on Mr. Saffery's advice, have decided that for the future the accounts submitted annually shall show both income and expenditure from the 1st January to the 31st December, and they accordingly instructed him to prepare the account for 1892 so that it should show the financial position of the Institute on the 31st December last. This he has done, the result being that the Income and Expenditure Account of Ordinary Funds records an income of twelve months and an expenditure of fifteen months. For the year 1892, therefore, and for that year only, it has the effect of making an apparent increase in the expenditure of £658. 14*s.* 7*d.*

All the accounts submitted have been audited by Mr. Lewis Angell [*F.*] and Mr. Wm. Woodward [*A.*], the auditors appointed by the Annual General Meeting of 1892, and they have attached their signatures to the same.

The Revenue Account and Balance Sheet of Trust Funds, for the year ended 31st December 1892, follow on the next two pages.

Revenue Account of Trust Funds for the Year ended 31st December 1892.

	Dr.	£	s.	d.	Cr.	£	s.	d.
Ashpitel Prize Fund.	To Cost of Books, Ashpitel Prize [John Begg]	10	10	0	By Balance from last Account	29	2	0
	To Balance carried forward	33	12	0	By Dividend on 20 Shares, Architectural Union Co., at 15s. per share	15	0	0
		44	2	0		44	2	0
Charitable Fund.	To Balance carried forward	8	17	1	By Balance from last Account	3	9	5
					By Dividends on £200. 10s. 2¾ per Cent. Consols	5	7	8
		8	17	1		8	17	1
Donaldson Testimonial Fund.	To Cost of Medals	2	15	0	By Balance from last Account	0	6	8
	To Balance carried forward	0	7	8	By Dividends on £72 L. & N.W. Railway 4 per Cent. Preference Stock	2	16	0
		3	2	8		3	2	8
Godwin Bursary.	To Cash paid to Holder of Bursary, 1892, 1st moiety [T. L. Worthington]	20	0	0	By Balance from last Account	4	1	5
					By Dividends on £1030 Caledonian Railway 4 per Cent. Debenture Stock	40	3	4
	To Balance carried forward	24	4	9				
		44	4	9		44	4	9
Grissell Legacy Fund.	To Cost of Medal [Harold Harlock]	9	18	0	By Balance from last Account	19	6	0
	To Balance carried forward	26	14	0	By Dividends on £260 Gt. Indian Peninsula Railway 5 per Cent. Stock	17	6	0
		36	12	0		36	12	0
Library Fund.	To Purchase of Books, Binding, &c.	85	14	8	By Balance from last Account	16	12	8
	To Printing, Stationery, &c.	8	13	6	By Annual Donation from a Member	5	0	0
	To Sundries, Petty Expenses, &c.	13	17	0	By Entrance Donation of one Hon. Associate	2	2	0
	To Balance carried forward	20	9	3	By Grant from Ordinary Funds	100	0	0
					By Amount received in Fines (Loan Collection)	4	19	9
		128	14	5		128	14	5
Owen-Jones Studentship.	To Balance of Grant paid Student for 1891 [F. W. Bedford]	25	0	0	By Balance from last Account	3	3	5
	To Moiety of Grant paid Student for 1892 [F. W. Bedford]	25	0	0	By Dividends on £1773. 6s. 8d. Midland Railway 3 per Cent. Debenture Stock	51	17	4
	To Balance carried forward	5	0	9				
		55	0	9		55	0	9
Pugin Memorial Fund.	To Cash paid Student (1891) [S. K. Greenslade]	40	0	0	By Balance from last Account	15	10	10
	To Cost of Medal	1	9	6	By Dividends on £1050 L. & N.W. Railway 4 per Cent. Preference Stock	40	19	0
	To Balance carried forward	15	0	4				
		56	9	10		56	9	10
Tite Legacy Fund.	To Cash paid Prizeman for 1892, 1st moiety [T. R. Kitsell]	15	0	0	By Balance from last Account	15	4	8
	To Balance carried forward	29	15	8	By Dividends on £1102. 15s. 2¾ per Cent. Consols	29	11	0
		44	15	8		44	15	8
Travelling Fund.	To Balance carried forward	76	7	11	By Balance from last Account	45	13	9
					By Dividends on £700 Madras Railway 4½ per Cent. Stock	30	14	2
	£	76	7	11	£	76	7	11

Examined with the Vouchers and found correct—
(*Signed*) LEWIS ANGELL, WM. WOODWARD } *Auditors.* 24th March 1893.

PROCEEDINGS.

Monday, 1st May 1893.

Fifty-eighth Annual General Meeting.

[Mr. Macvicar Anderson, *President*, in the Chair.]

The Preliminary Business of the Meeting included a Statement by the President of the results of the Examination held last month to qualify for candidature as Associate [see p. 309 *ante*]; and an announcement that Mr. Edwin T. Hall [*F.*] and Mr. B. Ingelow [*F.*] had been nominated as Members of Council for 1893-94, in place of Mr. R. H. Carpenter, deceased, and Mr. John Holden, resigned.

The late R. Herbert Carpenter [*F.*]

The President.—Gentlemen, it is with very deep regret that I have to refer to the untimely death of our friend and colleague Mr. Herbert Carpenter, which occurred about ten days ago, somewhat unexpectedly. Mr. Carpenter's life and work were of a quiet unobtrusive character, the latter being characterised by thoughtful study and refinement. He took as his text the study of old and good work, and he tried to give his own repre-

Balance Sheet of Trust Funds, 31st December 1892.

Dr.	£	s.	d.
To Ashpitel Prize Fund :—			
Capital—20 Shares in the Architectural Union Company, Limited, at £14 per share	280	0	0
Balance at credit of Revenue Account	33	12	0
To Charitable Fund :—			
Capital—£200. 10*s.* 2¾ per Cent. Consols, valued at	195	14	9
Balance at credit of Revenue Account	8	17	1
To Donaldson Testimonial Fund :—			
Capital—£72 L. & N.W. Railway 4 per Cent. Preference Stock, valued at	89	0	0
Balance at credit of Revenue Account	0	7	8
To Godwin Bursary :—			
Capital—£1030 Caledonian Railway 4 per Cent. Debenture Stock, valued at	1344	13	6
Balance at credit of Revenue Account	24	4	9
To Grissell Legacy Fund :—			
Capital—£260 Gt. Indian Peninsula Railway 5 per Cent. Stock, valued at	444	0	0
Balance at credit of Revenue Account	26	14	0
To Library Fund :—			
Balance at credit of Revenue Account	20	9	3
To Owen-Jones Studentship :—			
Capital—£1773. 6*s.* 8*d.* Midland Railway 3 per Cent. Debenture Stock, valued at	1773	0	0
Balance at credit of Revenue Account	5	0	9
To Pugin Memorial Fund :—			
Capital—£1050 L. & N. W. Railway 4 per Cent. Preference Stock	1313	0	0
Balance at credit of Revenue Account	15	0	4
To Tite Legacy Fund :—			
Capital—£1102. 15*s.* 2¾ per Cent. Consols, valued at	1058	13	10
Balance at credit of Revenue Account	29	15	8
To Travelling Fund :—			
Capital—£700 Madras Railway 4 per Cent. Stock, valued at	912	0	0
Balance at credit of Revenue Account	76	7	11
To Kapurthala Palace Competition Fund :			
Balance of same in Institute Accounts	88	15	0
£	7739	6	6

Cr.	£	s.	d.
By Government and other Securities for total value of Trust Funds invested	7410	2	1
By Cash in hands of Bankers	329	4	5
£	7739	6	6

Examined with the Vouchers and found correct—
(*Signed*) LEWIS ANGELL, WM. WOODWARD } *Auditors.*
28th April 1893.

sentation in his own way of what the work of the day should be. The architecture of to-day and the profession, I think, are both considerably poorer by the death of Herbert Carpenter.

Report of the Council for 1892-93.

The Annual Report, which was taken by the Meeting as read, a copy having been previously issued to every member within the United Kingdom, was then brought up for consideration; and its adoption having been moved from the Chair, Mr. Currey, the senior Vice-President, seconded the motion.

Mr. WOODWARD [*A.*].—Sir, on page 1 of the Report, with regard to the election of Fellows and Associates, we find that there has been a very small net increase in the number. If every member would exercise that spirit which should animate such an Institute as this, that small net gain would be considerably increased. It has often been said by members of this Institute that they care little for the Meetings, they care less for the Papers read, and in fact they regard the Institute only as something to which they contribute an annual payment. [Mr. ASTON WEBB [*F.*].—No, no.] That has frequently been said, Sir, and as a proof of that I would only point to the fact that if you go into the offices of some members of the Institute you will find the *Journal of Proceedings* is unopened. But, Sir, it is very satisfactory to note that there are 532 Probationers and 75 Students on the respective registers, and it is to be hoped that the merits of those gentlemen will lead to the accession to this Institute of the whole of them. The Council, I think, are to be congratulated on the step taken with regard to the proposed removal of Saint Mary Woolnoth. It would be a lamentable thing if such an interesting and magnificent specimen of that particular period of architecture were lost. That shows that the Institute can do good work, and it shows that the protests of the Council are listened to. I find, Sir, that the Practice Standing Committee have reported to the Council with reference to the By-laws under the Public Health Act 1891 sent to the Institute by the London County Council, and I should like to ask whether that report was ever printed. Any series of by-laws coming from the London County Council deserves our serious consideration. The County Council is a very moving

body, its by-laws have a very important effect upon Acts of Parliament, and I think that a report of that nature should have been sent to the whole body of the Institute, and not merely to the Council. I see also that the proposal of Mr. Cates to divide the United Kingdom into so-called architectural provinces is mentioned, and I also see by *The Building News* of last week that this proposal was formed into a resolution by the President of the Manchester Society, Mr. Edward Salomons, seconded by Mr. Alfred Culshaw, of Liverpool, and carried unanimously, so that there is every reason to hope that this proposal of Mr. Cates will be put into practical work. Further, there is a reference made to a Bill to provide for the compulsory legal registration of architects. It does seem to me that the time has now arrived when this Institute should cease to expend its funds in opposing a Bill which is considered by many outside the Institute, and by some inside the Institute, to be of value. I think that the least or the most that this Institute should do is to remain passive. The Art Standing Committee appear to have done good work. I am not aware that they have taken any steps to ascertain what is proposed to be done with regard to the decoration of St. Paul's Cathedral. I judge by that that they are perfectly satisfied with the Committee of St. Paul's, and are equally satisfied with the artistic productions of those artists employed by that Committee. All I can say (and I have no hesitation in saying it) is that, in this, I personally hold an entirely different view from the Art Standing Committee. I think the decoration of St. Paul's is a subject which should be watched with the keenest interest by every member of this Institute. On page 7 there is a reference made, Sir, to a scheme for amalgamating the TRANSACTIONS with the *Journal*, and I think I shall not be accused of egotism when I say that I personally have a special reason for congratulating the Council upon the proposition here referred to. I believe I was the only member who had the audacity to rise in this room to propose that the funds of the Institute and the usefulness of the *Journal* also would be very much increased by the amalgamation which the Council have now seen fit to adopt. As an instance of the completeness of the *Journal* when allied to the TRANSACTIONS, I need only refer to Mr. Burrows's Paper on "Building Stones," which is published in full in the last issue of the *Journal*, and the report of the discussion is also in full, and the illustrations are admirable. That Paper alone is quite sufficient justification for the course the Council propose to adopt. The Librarian's Report leads me to make a proposal which will add to the funds of the Library. At the Surveyors' Institution there is a rule that all newly-elected members shall contribute a sum of two guineas towards the Library funds. That sum is not felt by joining members; it has added very materially to the funds of the Surveyors' Institution; and I believe that it was a course followed by this Institute some years ago, but for some reason or other it has fallen into desuetude. I think that that system might very well be revived, and so the Library funds would be correspondingly increased. There is a falling off, I see, of attendances of readers in the Library; but I suppose that may be attributed to the fact that the younger members of the architectural profession consider that they are well advanced in all matters pertaining to their profession, and that it is not necessary that they should consult the important works in our Library. Let us hope that it is so. The Practice Standing Committee have only held three meetings, and at one of those, or at two, or at the three, they have considered and reported upon the By-laws of the London County Council to which I before referred, and I take it, Sir, that the paucity of the meetings of the Practice Standing Committee must account for the fact that the Conditions of Contract, which have been before them for three or four years, are still —no, they are not, I find they are now under the consideration of the Council, and there is hope now that our sons may have the benefit of these revised Conditions of Contract. Under the head of "Finance Report" [p. 322 *ante*] there is mention made of an anticipated deficit on the 31st December 1893 of £1,600; but members will bear in mind that on the other side they will find £1,146 have been allocated to the purchase of Architectural Union Company's shares, which, I believe, are considered by those who are entitled to say so, an excellent investment, so that that anticipated deficit is not so ugly as it would at first sight appear. In the "Estimate "of Receipts and Disbursements of Ordinary "Funds for the year 1893," I see an item of £120 for "legal and other expenses." Now, Sir, part of those expenses are to be or have been incurred in opposing the Architects' Registration Bill, and I think the time has arrived when those legal expenses should cease; and that, as I said before, the least that the Institute can do is to remain passive. We cannot afford, Sir, to indulge in the employment of lawyers in opposing a measure with regard to which I think we should at least remain passive. Then, Sir, there is a sum of £119 expended on "General Meetings and Exhi- "bitions," £100 of which is expended on Exhibitions alone (I am not sure that it is stated here, but it is the fact), and I do not say that that sum of money should not be expended on Exhibitions—I think that the Students' drawings and the prize drawings of this Institute should be exhibited; but it strikes me that £100 is a large sum for the privilege of hanging the drawings of the Students for our inspection. Then, Sir, I see a sum of £90 for advertisements in newspapers, and I believe I am right in saying that a very large proportion of it has gone into the coffers of *The Builder*. Now, I am not at all sure that that is a right proportion to go into the coffers of *The Builder*, which is to all intents and purposes a trade journal. It is true that it is edited by an architect, but if there is to be any distinction in the advertisements inserted in the professional journals, *The Building News*, which is circulated far more largely among the younger members of the profession, should be the journal selected for

the larger sum and not for the smaller; at all events, I think, Sir, that *The Builder*, *The Building News*, *The Architect*, and *The British Architect* should have a more equal share of our funds than they get. I think that our thanks are due to every officer, paid and honorary, of this Institute, and from my personal knowledge I am sure we are not doing anything more than we should do and ought to do in thanking heartily every officer of the Institute and every member who contributes to the general well-being of this corporate body.

Mr. BERNARD DICKSEE [*A.*].—Sir, it is stated that the London County Council sent certain By-laws up to our Council, and I should like to ask, first of all, why the Council did not think fit to let the general body of members know what was in these By-laws before they reported thereon to the London Council. I have seen these By-laws, and they are certainly, in many respects, extremely valuable By-laws; but there is one point on which I should like a little information. There is a provision that no soil-pipe shall be less than 3½ inches in diameter. I should like to know whether the Institute recommended a 3-inch or a 3½-inch minimum, and whether they will think fit to reconsider that question; because I myself and a great many others have always used a 3-inch soil-pipe, and I do not like being prohibited from using it in future.

Mr. T. M. RICKMAN [*A.*].—Perhaps, Sir, I may rise at once as a member of the Practice Standing Committee. I believe we are indebted to Mr. Dicksee for having told us of the existence of these By-laws. As regards his particular point, the Practice Standing Committee and the Council recommended that it should be 3½ inches instead of 4 inches. We did not consider 3 inches was sufficient.

Professor KERR [*F.*].—Mr. President, in looking over the statement of accounts, there seemed to me to be one or two points upon which it might be worth while or desirable to say a few words. I suppose these balance-sheets and estimates, and so on, are what may be called accountants' documents, and it is a characteristic of accountants' figures that they are not always easily understood. I think that some of the members of the Council are quite sufficiently acquainted with accountantship to add on a future occasion, if they will just turn it over in their minds, something that will explain to members in plain English how we stand as regards funds. If you look at the Balance-sheet of Ordinary Funds [p. 325 *ante*] you will find this apparently extraordinary statement, on the Debtor side, "To Accumulated Fund, "£10,689. 19*s.* 3*d.*" Now what that means I do not know; perhaps some one present can tell me. That figure is not accounted for in any other of the published documents; and if gentlemen reading this balance-sheet are under the impression that we have got an Accumulated Fund of £10,689. 19*s.* 3*d.*, I should like to know where it is. On the other side of the account you begin to see what it is that we possess. It seems that we have investments in Consols £2,206. 18*s.*; investments in the Architectural Union Company (a very good investment for us, because it is making us our own landlord so far) £2,828, making together £5,034. 18*s.* as what may be called realisable funds. Then it seems that our friends have made a valuation, which no doubt they have done with great skill, but I am afraid with great liberality, of the property which we possess. The lease of No. 9, Conduit Street they value at £1,364; that represents, I suppose, the improved value of the premises by reason of our much larger outlay. Then when you come to furniture, fixtures, and fittings, £2,500, we must remember that that is the value to us—that is not the value at which the things would sell. Printed books and manuscripts I will say nothing about, because it is a question that we should not like to discuss—the value of our library. But when we come to oil paintings (probably the portraits of our distinguished men on the walls) they are put down at £1,800, and I think we must distinctly understand that that is the value to us; and so on. So that the £10,654. 1*s.* 6*d.*, which is supposed to represent the non-realisable property of the Institute, is, I am afraid, to be taken with a qualification. But, Sir, what I wish to point out is that the £9,644 on the other side of the account really means nothing at all. The real strength of our financial position is to be found on page 324, and there it appears that we possess £4,388. 17*s.* 4*d.* of primary annual income, and upon that fact, Sir, I think we ought to congratulate ourselves most sincerely. It was only a very few years ago that our income was not half that, I think; and if the gentlemen who have taken the trouble and pains, and expended the ingenuity, for which we have thanked them over and over again, in devising the examination scheme deserve our thanks for anything, they deserve it point-blank for this palpable and tangible result. We have doubled the income of the Institute. The examination scheme, Sir, taken as a whole, has been most successful, and success is the test of merit; we need go no further. It is not necessary for us or anybody outside our borders to discuss the expediency of the contrivance; the contrivance has succeeded, and has succeeded admirably, and there is an end of it. The only thing that it seems to me, as I am on the subject, we have carefully to avoid is laying ourselves open to the charge of being a Trade Union or Professional Union—a charge which has been brought against us with considerable vigour; but we must carefully avoid the danger of the Institute acquiring the character of anything like a mere Union for professional purposes. We also know what was said from the Bench by a very distinguished lawyer the other day; and you may depend upon it that if a man like Lord Grimthorpe or Lord Coleridge commits himself, however hastily, to the suggestion that we are a Trade Union, it is necessary that we should most carefully avoid giving occasion for the confirmation of that opinion. There is one other point of perhaps more exalted importance than mere finance to which I shall be glad if you will allow me to direct attention—that

is, the correspondence which has taken place with the Royal Commission respecting a Teaching University for London. During the last thirty years I have been, as you know, connected intimately with the ground on which this Teaching University may be built, and it seems to me that, as regards our province of architecture, we must be careful not to be misunderstood. A good deal has been said within the last year or two of the advancement of architecture by the direct teaching of architecture in the colleges. Now, I am of opinion that that will not avail. I speak with all respect of my own college, with which, as you know, I am still connected, and I speak with equal respect of University College, with whose professors we have always been on most friendly and intimate terms, and I speak with all respect of certain provincial colleges that have done good work. But that is not how architecture is to be taught; I think it is much more to be taught by the scheme of education which is involved and skilfully laid out, as I believe, in our examination project; and although I always remember that our old friend Professor Donaldson used to assert very strongly that this Institute was not an educational body, and never could be made so, yet I think that times change, and we must change with the times. With regard to a Teaching University I wish to say a word or two. My own opinion, after a good deal of thought over the matter for many years, being in the midst of the atmosphere of it, is that what is required to be taught in the great London University which we shall presently have (it is the doctors who are in the way of its being established) is this: the teaching of the elements of critical art to the public at large. We cannot get the public to understand art, as a rule; we cannot get the public to appreciate art; we cannot get the public to take an interest in the discussion about public artistic questions. It seems to me that if we would teach the architects ourselves, and if we could induce the great Teaching University which is coming to teach the public, that is the proper ground to take up. I would have a department of art in this University—not merely a school of architecture, which I do not think would be of any use, but a department of art devised for the express purpose of teaching, not the professional youth, but the public at large. The English mind is not an artistic mind up to the present moment. Although I venture to be of opinion that the time is coming when England will take a very remarkable lead in the art of the world at large, yet, up to the present time, the English mind requires a great deal of teaching; and that is the way, and the only way, in which I think it can be done. Anything like desultory teaching would be of no use whatever. We want instruction in the elements of art given in such a way as to interest the young men and maidens of the cultured classes while they are preparing to enter upon the serious business of life. It could easily be done, it seems to me, and might be done with great service to the public interest, and with great service to the public profit. It seems to me, that if this Institute would take some opportunity of assuming its proper position as the leader of all industrial art—architectural art I take to be the leading art of all industrial art; the greatest historical art of all; the first of the industrial arts; no more, no less. If, then, we could help the great Teaching University of the near future to take this view of industrial art as a matter of profit to the community, and as a matter of credit to the intelligence of the community, I think we, as an Institute, should be doing a great service to the public of this country.

MR. G. A. T. MIDDLETON [*A*].—Sir, I should like to suggest that, when the new scheme comes into force,—at any rate then, if not before,—the Papers upon Stresses should be of a more scientific nature—I do not say more severe, but more carefully set. With regard to a Teaching University, I suppose Professor Kerr's observations refer to the Gresham University. I do not know if it is known generally that the London University is also moving in this matter—that during the last Christmas vacation it was decided that the London University also should be made a Teaching University. I think that if any steps are taken by the Institute that should be borne in mind, and the London University watched as well as the Gresham University. There is one point which I cannot by any possibility pass over, remembering that I am one of the Committee which drafted and which promulgated the Architects' Registration Bill. This is the most important matter now before architects, undoubtedly, and it seems to me that before the Council opposed it the members of the Institute should have been called together, and the Bill placed before them, and carefully and thoroughly discussed in this room; and that, instead of one petition being issued by the Council, there should be issued to members of the Institute two petitions side by side, one in favour and one against, and that the Bill also should be issued to members, and the members invited to sign which they please. I think it is well known that there is a very considerable minority of this Institute in favour of passing the measure, a minority that believes the measure would do infinite good to the profession, as we do who have drafted it.

THE PRESIDENT.—The subject was discussed in this room on one occasion, and the Council were instructed to petition against the Bill.

MR. ARTHUR CATES, *Past Vice-President*.—Can you explain, Sir, the amount in the estimate for legal expenses? Mr. Woodward mentioned £120, and he appears to apply the whole or the greater part of that to expenses in opposing the Architects' Registration Bill. If you could give the Meeting the exact figure of what was expended last year, and is likely to be expended this year, on that opposition, it might perhaps ease the minds of some who think the Council have not been just stewards of the funds entrusted to their care.

THE PRESIDENT.—The £120 referred to is an estimate, and I believe there is nothing at all included in it for the expenses of opposing the Architects' Registration Bill. It provides for the

fee to the accountant we have employed; and there is a good deal of legal expense also in connection with the alteration of the By-laws which we have to meet. I am not prepared to give you the whole items, but these and other items represent the sum in question. The Secretary can state what sum has been expended on legal expenses connected with our opposition to the Architects' Registration Bill.

THE SECRETARY.—Sir, I have a bill here from Messrs. Markby, Stewart and Co. for legal expenses from 1889 to 1892, which bill was paid in 1892. There is an item in it, dated March 1890: "Charges relating to preparation of petition "presented by the Institute against the Architects' "Registration Bill, correspondence and attendance "in relation thereto—£7. 11*s.* 10*d.*" That is the only item of *legal* expenses I know of. This year we do our own legal work with regard to the Bill.

MR. LACY W. RIDGE [*F.*].—You seemed, Sir, to suggest that these accounts are not understood by the gentleman who raised the question thereon. I can only say that I never heard more complete evidence of understanding of accounts, or more perfect testimony to the way in which they are drawn by the accountant, than the admirable speech delivered by the Professor. That the accounts are rendered in the form prescribed by the accountant is true; but they are evidently in a form which it was quite possible for the Professor, not only to understand, but to make quite plain to everybody in the room. No words that I could use would equal in clearness those that have been so admirably spoken by Professor Kerr.

THE PRESIDENT.—There are one or two points which I may explain and reply to. Mr. Woodward, and also Mr. Dicksee, referred to the By-laws of the London County Council which were reported on by the Practice Standing Committee; and asked why they were not issued to every member. The matter is simple, for it was through the courtesy of the County Council that the Council of the Institute and its Standing Committee were permitted to give advice on the proposed By-laws. As a matter of fact, the draft is still under consideration, and has not been published. In regard to the Architects' Registration Bill, if the Council were to refrain from petitioning against it now, the natural inference would be that they supported it, inasmuch as they have petitioned against it on every previous occasion; and, with all deference to Mr. Middleton, we propose to petition against it again. It appears from what has been said that some time since Mr. Woodward proposed the scheme that I took the liberty of suggesting in my last address—the amalgamation of the TRANSACTIONS with the *Journal*. If so, I congratulate him on his prescience, for I proposed the change without having known that he had taken the same view. With regard to the accounts, and the way in which they are published, the word "deficit" occurs several times. It occurs in the Account of exceptional receipts and expenditure. But that is the accountant's word, and no doubt it is technically correct from his point of view, though from my point of view it is not so. A certain amount of money has been expended in buying shares in the Architectural Union Company as an investment, and a certain amount of money has been expended on these premises. To find the money to provide for such outlay of capital we propose to sell out a certain portion of vested funds; but that is not in the nature of a deficit; it is finding funds for investments. The £100 for exhibitions was taken exception to by Mr. Woodward; but it must be remembered that that includes the considerable expense of sending the prize drawings (a course that has been adopted for the last two years) to Allied Societies; I think that is an expense which is not only justifiable but commendable. I have only to add that we all listened with great interest to the remarks of Professor Kerr upon the great Teaching University that it is proposed to establish. If no one else wishes to speak, I will put the Motion that the Report be received and adopted.

The Report was adopted unanimously.

THE AUDITORS, 1892–93.

THE PRESIDENT.—Gentlemen, I wish to take an opportunity of proposing a vote of thanks to the gentlemen who have acted as Auditors during the past official year, Mr. Lewis Angell and Mr. William Woodward. I know it is no sinecure from the little I have seen of their labours, and I know their labours have extended far beyond what I have seen.

MR. LEWIS ANGELL [*F.*].—Mr. President and Gentlemen, as Auditors we thank you for your expression of thanks to us; it is no sinecure, as you say. I think on three different days we spent considerable portions of time in attending to these matters, but what gave us great satisfaction was the way in which the accounts of the Institute are kept; the clearness, precision, and ability with which your officers keep the accounts is certainly very gratifying to your Auditors.

With reference to the election of Scrutineers and Auditors at Annual Meetings, Mr. Ridge suggested that a list should be kept of the younger members, in their respective classes, and giving the offices they may have filled, from which list it would be possible to choose gentlemen for the offices in question—a method which he argued would be better than choosing from among those who attended an Annual Meeting, and who probably would be found already occupied with a great deal of the work of the Institute. Mr. Arthur Cates, however, urged that the Auditors should be selected by the general body, not as a mere matter of form, or in turn, but quite independently.

MINUTES. XIII.

At the Fifty-eighth Annual General Meeting (the Thirteenth General Meeting of the Session), held on Monday, 1st May 1893, at 8 p.m., Mr. J. Macvicar Anderson, *President*, in the Chair, with 24 Fellows (including 12 members of the Council) and 21 Associates (including 1 member of the Council), the Minutes of the Special General

Meeting and the Ordinary General Meeting, held on Monday, the 17th ult. [see p. 300 *ante*], were taken as read and signed as correct.

The decease was announced of the following Fellows, namely:—R. Herbert Carpenter, F.S.A., and Thomas Stone.

The following members, attending for the first time since their election, were formally admitted and signed the Registers of Fellows and Associates respectively, namely:—Alfred Edward Purdie, *Fellow*; and Alfred Ryshworth Hill, *Associate*.

EXAMINATION FOR CANDIDATURE AS ASSOCIATE.

The President announced the names of 42 gentlemen who had qualified for candidature as Associate [see pp. 309-310 *ante*]. Whereupon it was

RESOLVED, that the thanks of the Institute be recorded to the Chairman and Board of Examiners in Architecture, the Glasgow Institute, the Bristol Society, the Leeds and Yorkshire Society, the Manchester Society, and the Northern Association for their labours in connection with the April Examinations.

STATUTORY EXAMINATIONS, APRIL 1893.

The President announced that at a Statutory Examination held on the 27th and 28th ult., four candidates presented themselves for examination under the Metropolitan Building Act 1855, two of whom obtained Certificates of Competency to act as District Surveyors in London, namely:—Albert William Cleaver [*A.*], of Highbury Villa, Leytonstone, Essex; and Reginald Molesworth Gruggen [*A.*], of 37, Spring Gardens, S.W. One candidate also presented himself for examination under Local Acts, but did not pass.

NOMINATION OF COUNCIL, 1893–94.

The President further announced that in consequence of the decease of Mr. R. Herbert Carpenter, and the withdrawal at his own request of Mr. John Holden's name from nomination as Member of Council, Mr. Edwin T. Hall and Mr. Benjamin Ingelow, *Fellows*, had been nominated by the Council in their place.

ANNUAL REPORT OF THE COUNCIL.

The Annual Report of the Council for the official year 1892–93 having been taken as read, the President moved its adoption, which was seconded by Mr. Henry Currey [*F.*]

In the discussion which ensued Mr. Woodward [*A.*], Mr. Bernard Dicksee [*A.*], Mr. T. M. Rickman [*A.*], Professor Kerr [*F.*], Mr. G. A. T. Middleton [*A.*], Mr. Lacy W. Ridge [*F.*], Mr. Arthur Cates [*F.*], Mr. James Neale [*F.*], and the President took part. Whereupon it was

RESOLVED, *nem. con.*, that the Report of the Council for the official year 1892-93 be adopted.

EXCEPTIONAL EXPENDITURE, 1890–93.

The motion in respect to the sale of stock, of which notice had been previously given, having been proposed by Mr. Henry Currey [*F.*], and seconded by Professor Kerr [*F.*], it was

RESOLVED, that the Council be authorised to sell stock to the amount of £1,310 2*s.* 9*d.*, to meet the exceptional expenditure incurred during 1890–93.

APPOINTMENT OF SCRUTINEERS: ANNUAL ELECTIONS.

By-law 30 having been referred to, so far as concerned the appointment of Scrutineers to direct the election of the Council, and By-law 49 having also been referred to, so far as concerned that of the Standing Committees, the following members were appointed, viz.:—

For the election of the Council:—William Kidner, E. H. Martineau, C. Stanley Peach, Alfred E. Purdie, *Fellows*; Albert W. Cleaver, G. A. T. Middleton, William Woodward, *Associates*.

For the election of the Standing Committees:—Frank Baggallay, Alfred Bovill, H. L. Florence, E. A. Gruning, James Neale, J. Osborne Smith, R. Phené Spiers, Frederick Todd, *Fellows*; Bernard Dicksee, George Kenyon, D. Barclay Niven, Andrew N. Prentice, W. L. Spiers, H. G. Turner, E. W. M. Wonnacott, *Associates*.

LIST OF ATTENDANCES, 1892–93.

The list of the attendances at Meetings of the Council, of the Statutory Board of Examiners, the Board of Examiners in Architecture, and of the four Standing Committees were taken as read [see *Supplement*].

NOMINATION OF AUDITORS, 1893–94.

By-law 40 having been referred to, so far as concerned the election of the Auditors, the following members were nominated as Auditors for the ensuing year of office, namely:—James Neale, *Fellow*, and G. A. T. Middleton, *Associate*. Whereupon it was, on the motion of the President,

RESOLVED, that the thanks of the Institute be recorded to Mr. Lewis Angell [*F.*] and Mr. Wm. Woodward [*A.*] for their services as Auditors for the official year 1892–93.

THE STATUTORY BOARD OF EXAMINERS.

By-law 43 having been read, the Meeting proceeded to appoint the Statutory Board of Examiners for the ensuing year of office, and it was, on the motion of the President,

RESOLVED, that the following Fellows be reappointed the Statutory Board of Examiners under the Metropolitan Building Act 1855 and other Acts of Parliament for the ensuing year of office, namely:—Professor George Aitchison, Lewis Angell, Francis Chambers, George Elkington, Professor Banister Fletcher, Charles Fowler, Ebenezer Gregg, Frederick William Hugh Hunt, Edward Blakeway I'Anson, Professor Robert Kerr, Joseph Douglass Mathews, Lacy William Ridge, Professor Thomas Roger Smith, Benjamin Tabberer, and Thomas Henry Watson.

The proceedings having thus been brought to a close, the Meeting separated at 9.30 p.m.

ALLIANCE OF THE INSTITUTE OF NEW SOUTH WALES.

Mr. J. Horbury Hunt's Address.

At a Special General Meeting of the Institute of Architects of New South Wales, held in Sydney, on the 10th March 1893, Mr. J. Horbury Hunt [*F.*], President, took the chair, and delivered an Address on the recent alliance of the Australian Society with the parent Institute, extracts from which follow :—

Fellows, Associates, and our Respected Visitors,—As President of the Institute of Architects of New South Wales, I have the distinguished privilege of now officially announcing to you that we have been honoured by being raised to the rank of a body allied to the Royal Institute of British Architects. It is, therefore, with just feelings of pride I greet you on this occasion. [Mr. Mansfield here called upon the Meeting to "rise as one man and hail the announcement "with three hearty cheers," which was enthusiastically done.] . . . It is well known to many of you that this subject of Alliance has been preceded by private correspondence (dating some time back) between myself and my old and respected friend Arthur Cates, and others. Eventually the application was duly prepared, and accompanied by all necessary official papers to show that we were a duly constituted body.

[Mr. Horbury Hunt then proceeded to read the Petition for Alliance, printed on p. 96 *ante*.]

On the 19th of December last a Meeting of the Royal Institute of British Architects was held, and by twenty minutes past ten o'clock that evening a cablegram was despatched from London, reaching Sydney 12.40 p.m. on the 20th December, informing me of the completion of the Alliance. The following day it appeared in the daily press, from which it was taken by our professional journals. . . . I am certain that you will all agree with me that this prompt attention on the part of the Secretaries of the Royal Institute stands out as a special act of kindness on their part towards us. . . .

[Mr. Horbury Hunt also read the speech of the President of the Royal Institute, when proposing the Alliance, as printed on p. 96 *ante*.]

The official letter informing us of the Alliance came to hand on the 27th of January 1893, and reads thus :—

"To J. Horbury Hunt, Esq., *President of the Insti-*
"*tute of Architects of New South Wales.*
"*London, December 22nd*, 1892.

"Dear Mr. President,—We have the pleasure "to state, for the information of yourself and of "the Council and Members of the Institute of "Architects of New South Wales, that the re-"commendation of the Council of the Royal "Institute of British Architects supporting your "petition for Alliance was submitted to a General "Meeting of the Royal Institute on Monday the "19th inst., when the following Resolution was "passed by acclamation :—

"'That the Royal Institute of British
"'Architects do admit to Alliance therewith,
"'under the provisions of Section XVII. of
"'the By-laws Nos. 77-81, the following
"'Society: The Institute of Architects of
"'New South Wales, Australia.'

"We caused the fact to be telegraphed to you on "the same night, and the official Journal pub-"lished to-day, which contains a record of the "above, has been forwarded to you by book-post.

"We are, &c., Wm. Emerson, *Hon. Secretary.*
"William H. White, *Secretary.*"

Having been raised to the rank of a body allied to the Royal Institute of British Architects, the acknowledged centre or home of British architectural life, a feature has now been introduced into our present colonial existence worthy of our highest appreciation, demanding our most careful consideration, for at any time to be found wanting or unworthy of the respect paid to us, or the confidence entrusted in us, would be a serious matter to contemplate.

Let us trust that by wise and patient administration of our affairs, assisted by the *prestige* of the parent body, we shall be more able to mould the future practice of the profession in this colony, and so secure to ourselves the appreciation of the parent body. It is due to you who have stood by me with so much firm determination in reconstructing this Institute to say that much of this success is due to you, because by that evident determination to place the Institute upon a proper basis we have gained the confidence of the members of the parent body, causing them to place in our hands their welfare in this important section of her Majesty's dominions. . . .

Fellows, Associates, and Honorary Members, I pray you will individually and as a united body strive (and I am certain you will) to be worthy of the trust placed in our hands, and be alive to the greater responsibility now imposed upon us.

I hold in my hand two letters forming the first links in our connection with the parent body—one is written by Charles L. Eastlake, the other by Frederick P. Cockerell (two honoured names in the earlier history of the R.I.B.A.): that of Mr. Eastlake, dated July 26th, 1872, advising the despatch of a case of books; that of Mr. Cockerell, also in 1872, writing as Hon. Secretary to our Mr. Backhouse. Mr. Cockerell said :—"Your "letter was laid before the Council of the "R.I.B.A., and I was desired to express to you "the greatest interest felt by our members in the "efforts of our colonial brethren to spread a "knowledge and love of Art under the unfavour-"able conditions which must always exist in a new "country, and to give you the assurance of our "cordial good wishes for your success." The hand that penned these cheering words has laid its pen down for ever, while we are able, by God's blessing, to still look upon the recipient [Mr. Backhouse] of that communication, and I think you will all agree with me he looks more venerable than in 1872. . . .

To you, Fellow Citizens, I will address the words used by the first President of the Royal

Institute of British Architects at its first Meeting. "Gentlemen," said his Lordship, "I appeal to "you feelingly: the Institute only requires to be "known in order to be patronised; its success "demands merely that its objects should be really "understood, not amongst the profession alone, "but amongst those who, though not professionally "so brought up, feel an interest in the science, "and when duly appreciated benefit must result "from it: on these grounds I feel that I may "appeal to you, and through you to the public." . . . On an occasion like this it will be of interest to many to know something of the formation of the R.I.B.A. The first, or opening, Meeting of the Institute took place on the 15th June 1835, with Earl de Grey as President.

In those days the Royal Academy ruled over everybody and everything having anything to do with Art or Architecture. The early struggles against the Academy date back to the early years of the present century. A few zealous junior members of the profession of architecture held meetings in rooms in Lincoln's Inn Fields. After a while a small number of senior men came together in Chambers, at King Street, Covent Garden; eventually the young and old founded the present Royal Institute of British Architects. It first became an incorporated body under a Charter of William IV., which has been supplemented by one of greater scope.

[Mr. Horbury Hunt here read the second Charter granted by the Queen in the fiftieth year of Her Majesty's reign.]

It will now become the imperative, yea loyal, duty of the New South Wales branch of the British profession, to the best of its ability, to guard and protect the good name of the parent body in this colony; while, on the other hand, the good government and conduct of this Institute will be watched by the home authorities, to whom we shall be answerable for any culpable neglect in our endeavour to uphold the true position of the profession.

In preparing our Certificate of Membership I was desirous that our Council should adopt as near as possible the spirit of the language used in the Certificate of the R.I.B.A., without appearing to aspire to a position not ours.

You will have noticed in the Charter just read are used the words Body Politic and Corporate. Some doubt arose in my mind as to using the word "Body Politic." When any difficulties of this kind present themselves to me, I know I have a kind and willing adviser in my old friend Sir Alfred Stephen, who more than once has been my counsellor in matters relating to our profession and this Institute.

In his usual spirited and thoroughgoing manner he went into the whole subject, when he advised me not to use the word Body Politic, simply adopting the expression Body Corporate. For more than one reason I was glad of this determination by so high an authority, thus confirming my own humble opinion that the R.I.B.A. should be recognised by the whole British profession as its centre of professional life, to be thus by common consent raised to the highest capacity of a central governing body—namely, Body Politic. The greater the number of dependencies an empire or nation has, the greater the Body Politic is developed in that nation or empire.

Many years prior to the time when our esteemed brothers on the other side of the Murray elected to prefix "Royal" to their title I find it recorded that I was ambitious enough in those early days to move and get carried that we should ask for the power to prefix "Royal" to our title, and thus be proclaimed the Royal Institute of Australian Architects. Young men, like young communities, are inclined to big notions. Strange to say, our own Royal Society here had something to do in causing the formation of this Institute, and also the then ambitious desire for the distinguished prefix.

It fell to my lot, in those early days of our existence, to be deputed to consult Sir Alfred Stephen, then acting Governor, as to permission to use the prefix "Royal." He advised not to aspire to so distinguished a title with nothing to back it up, pointing out that it would be well to have but one Royal Institute, and thus be the better for the honour of the rank of distinction. My desire for the distinguished prefix soon cooled down, and we no further considered the matter. I have now, with riper years, come to the firm conclusion that there should be but the one Royal Institute of Architects in the British, or, if you like, the Greater British profession, namely, the parent body of which we are now an honoured branch. . . .

It is my desire ere long to raise this Institute just one rung higher up the legal ladder by obtaining a charter, but not with the idea of prefixing "Royal." Our Victorian friends are not a chartered body, but simply incorporated like ourselves. We had to become united into a body by law: this had to be done as our first step in gaining our primary object in reconstructing the Institute. It is by these short safe steps we have proceeded to our present position. We are gaining experience under our simple constitution so as to be the better able to frame a more comprehensive one.

Some have asked what are to be the benefits they, as non-members of the parent body, are to gain by becoming members of the Institute here, now that it is an allied body—asking, if they joined the Colonial Institute, would they have the privilege of affixing the title of membership with the parent body to their names. Is it not sad to know that men can grow up in such indolent selfishness? Is it not a positive and an unpleasant fact that they who do the least, pay the least, give little or none of their personal assistance in furthering the interests of their fellow-men, are the most eager in seeking to secure some right or privilege secured by the industry of their fellows? Let it be clear to those who are now, or who may become members of this Institute, that they have no individual right or title to any of the privileges of membership of the parent body; but it will be very clear to all liberal-minded men that by this alliance they enjoy, as one of a corporate body, the benefit that must spring from the public

official recognition at the hands of such a body as the R.I.B.A., thus testifying, as it were, to the fact that we are actuated by and under the same professional laws as govern themselves, and that we are pledged to observe these laws. They further declare that we are, in their opinion, worthy of encouragement and support, while they lend to us the prestige their name carries among men of letters and those associated with the sister arts and sciences, thus, as it were, introducing us to the world of Literature and Science as an adopted son.

As we grow into full manhood may we become strong in upholding the honourable practice of the British architectural profession in this portion of the Empire!

We have just recently been honoured by the Belgian Society of Architects, as the following communication testifies:—

"*Central Society of Architecture of Belgium.*
"*Brussels, 25th Oct.* 1892.

"GENTLEMEN AND HONOURED COLLEAGUES,—
"The Central Society of Architecture of Belgium,
"at their monthly meeting on October 7th,
"1892, unanimously decided to nominate your
"Society to the rank of a correspondent.
"We shall be happy to have with your Society
"frequent communications which reserve the
"advantages which hold together in a fraternal
"manner the Societies of Architects.
"Receive, Gentlemen and Honoured Colleagues,
"the assurance of our most distinguished con-
"sideration.
"(Signed) FRANZ DE VESTEL, *President.*
"H. VAN DIEVOOT, *Secretary.*

"To MR. HORBURY HUNT, *President of the Institute*
"*of Architects of New South Wales.*"

This is as unexpected as it is truly spontaneous. Friendly greetings of this kind from a distinguished foreign body are healthy inspirations for us to be up and doing with a firm determination to be worthy of such distinguished recognition. My young friends, what a future you have before you! Think well, I beg of you, and also seriously consider the duties in store for you.

Our Belgian friends have paid us a very high compliment indeed, one which will give us pleasure in recognising, while it will be also gratifying to the parent body to see recorded this act of the Belgian Society.

We are now charged by the parent body to be watchful, and see that no one shall, unchallenged, improperly appear before our colonial public as members of the parent body, while having no right or title to its honourable fellowship.

Shame be it said, and it would be unmanly to pass unnoticed the fact, that there are, and have been here among us, unworthy members of the profession, and holding fellowship with the parent body—men quite regardless of the obligations or the responsibility placed on them by the solemn declaration of their membership, simply using the name of the home Institute to further their business aims.

There is a class of pushing men who come out to the colony with the most selfish objects, and they do come with the strange idea that no previous right exists here, or that they will not be required to conduct themselves as English society would require of them. We are fully aware that this class of men exists in every profession, but those who come out to these distant parts have in the past come to feel confident in their assumed position, and to go as they please, becoming quickly emboldened from the fact that they know too well the executive power that could deal with them is too far off, and therefore the chance of being asked to show cause why they should not be struck off the roll is remote enough to prompt them to continue as they started. It will now be our duty to initiate, when necessary, and follow up an inquiry here on the spot, where all the facts exist. Let us trust we may never have cause to undertake any such like unpleasant duty after we have disposed of some cases already taken notice of.

For a long time colonial members of the profession have felt it a very great hardship to be asked to help maintain the honour and dignity of the profession, when some English-trained men come out here and set such bad examples, while our members are tied. Many of these men loosen themselves from their obligations and hold on to the prestige of home training and, perhaps, distinction of fellowship of learned European bodies. Men of this stamp ever have existed, and ever will, in all assemblies of men, and in every clime. It will nevertheless be our duty to confront such men—perhaps with some little risk of being charged with selfish motives; but as we grow stronger and older, and take care to cultivate the power we have within ourselves, then let us—gently if possible, otherwise if required—show them that they have come to live in an important section of the British Empire, and that we are, year by year, developing into a nation having the same manly sentiments so characteristic of the stock we have sprung from, which fosters recognition of sterling worth and marked ability, and that we are prepared at all times to offer the right hand of fellowship to those who come among us, especially to those holding fellowship with the body which has conferred upon us the honour of kinship, and to all those who may come to be of us, to work with us for the good of the whole profession and the public, with whom we are co-workers, in the welfare of this the land of our birth or adoption.

To you, Mr. Secretary, in trust for the Institute, I present this bronze medallion in commemoration of this day and its recorded events. On the obverse side I have written thus:—

"To the Institute of Architects of New South
"Wales.
"From John Horbury Hunt,
"F.R.I.B.A., Hon. Mem. A.I.A.,
"President of the Institute (and one of the
Founders)."

To be held in commemoration of the honour conferred upon the Institute by the Royal Institute of British Architects. 1893.

THE HON. SECRETARY (Mr. Davey).—Mr. President, in receiving from you, on behalf of this Institute, this medallion, which, with others, you have had prepared at your own private cost, I am sure I am expressing the feelings of all our members when I say that this is but another proof of your thoughtfulness in matters appertaining to this Institute and the profession to which we belong. This is an act arising from your own generous impulse, and was not known to the Council, or even to your own personal friends, until the completion of the die, when you sought the authority of the Council to use it for this purpose.

MR. HORBURY HUNT [*F.*], President.—To my old correspondent, Mr. Arthur Cates, I send another one. On the obverse side are inscribed, among others, these words:—"In commemoration "of the Alliance, mainly the result of your zeal in "the welfare of our noble profession in this distant "portion of Her Majesty's Dominions. 1893." No doubt Mr. Cates will some day cause this to go to the R.I.B.A., but let us pray he may long live to be known to us as its recipient, for to him this Institute, and in fact the whole British profession, owes much.

To you, Mr. George Allen Mansfield, I am about to hand this bronze medallion, and in doing so I have a full sense of that pleasure which one feels in performing an act to commemorate some achievement. The use of medallions to commemorate a victory or public benefit to a nation or people was adopted by the device of man from his earliest stage of recording events. On this occasion I have deemed it proper in this way to mark the event we have to record. Relating to it on the obverse side are engraved these words:—

"To George Allen Mansfield, F.R.I.B.A.,
"First President of the Institute of Architects of
"New South Wales.
"From John Horbury Hunt, F.R.I.B.A., Hon.
"Mem. A.I.A. First and present President
"of the Institute as an Incorporated Body,
"in Alliance with the Royal Institute
"of British Architects. Commemorating
"the Alliance, and acknowledging many
"years of active co-operation in the welfare
"of the profession. 1871–1893."

I now place in your hands, Mr. Mansfield, this metal record of the work we have been conjointly engaged upon for many years, and by God's blessing I trust we shall live to see our work prosper by younger and more able hands, who will carry forward with well-directed zeal what we have but commenced.

MR. G. A. MANSFIELD [*F.*].—Mr. President, most gratefully do I appreciate the kindly and generous spirit which has prompted you to present to me this much-valued memento of a most auspicious occasion. A glow of pride and satisfaction must, I am sure, fill every loyal heart here present at the thought that we have this day joined hands with our brethren in the old country, in the determination to uphold the honour and dignity of our profession, and to advance its truest and highest interests to the utmost of our power. It is a source of legitimate pride that they deem us worthy to be united with them in this great work. Although our memories will need no spur to keep this day in mind, yet a token so interesting and valuable as this beautiful medallion is a possession which I shall greatly prize, and which I shall regard as an item, and not a small one, in the heritage of my children. In accepting this gift at your hands I recognise the fact that it comes not merely from personal considerations of friendship, for such would apply to many others whom I see around me, but in recognition of the fact that I was the first President of the Institute at its foundation twenty-two years ago. Of the little band who then met together some half-dozen still remain to help on the work they then began, and you, Sir, from that day have never ceased to labour for the interests of the profession in a spirit of unselfishness and perseverance which one would suppose must be appreciated by all who have knowledge of it. Unfortunately this has not always been the case, but, in spite of many obstacles and difficulties thrown in your way by opposing forces that would seek to disintegrate the unity of the profession, you have at last achieved a triumph in which we are all privileged to share. Once more, Sir, I thank you most heartily for your valuable gift.

MR. HORBURY HUNT [*F.*], President.—I have now the honour to move that the following letter be forwarded to the Royal Institute. I know it only requires to be read to meet with your approval by acclamation:—

"*To the President, Council, and Members of the "Royal Institute of British Architects.*

"GENTLEMEN,—Your communication addressed "to our President, J. Horbury Hunt, under date "of December 22nd, 1892, has been received by the "President, Council, and Members of the Institute "of Architects of New South Wales, for that "purpose assembled.

"In receiving your communication which raises "us to the rank of an Allied Body, we do assure "you that this is a distinction we feel a just pride "in acknowledging, and we are moved by those "higher feelings of gratitude arising from the "knowledge of having been admitted into the "company of such distinguished co-workers in the "noble profession of architecture.

"We are conscious of the great assistance it "will be to us, so far removed from the European "centres of Art and Literature, to be in this way "permitted to share, even in so small a degree, "the prestige of your name.

"We assure you that we will keep our promise "made in our application for the position you "have granted us, and that we will endeavour to "prove ourselves ever worthy of your confidence, "support, and respect.—I am, &c.

"(Signed) J. J. DAVEY, *Hon. Secretary.*"

. . . . . .

MR. MANSFIELD [*F.*].—Mr. Hunt, it is my good fortune to be charged with the pleasant duty of handing to you the first Certificate issued by the Institute of New South Wales. In so doing I

congratulate you upon being the first recipient of a credential which is the first unit in what I hope and believe will be a series that will form a muster roll of names which will do honour to the land of their birth or adoption.

Mr. HORBURY HUNT [*F.*], President.—Mr. Mansfield and respected Colleagues, in taking from Mr. Mansfield's hands the first Certificate of Membership ever issued by the Institute, although its foundation dates back twenty-two years, the fact naturally brings to one many thoughts of the past, and may lead some to ask, "How comes it that not "until 1893 are Certificates of Membership issued?" Let us pass such a question unanswered. Institutes, like some men's lives, are full of strange interchangings of events. The President of 1871 has now been called upon by common consent to complete one of his official duties of that day. What a fortunate thing for him he is not in the position of a contractor under a penalty for overtime! Still, it would be well for us had he paid up 1,200 weeks at 5*l.* per week, because it would give us the fine sum of 6,000*l.* What a jolly fine order we could then send to Quaritch, Batsford & Sotheran! Whatever good or bad work I may have done for you, Mr. Mansfield as the architect, and Mr. Davey as the clerk of works, are answerable to you, as the building owners, for the services rendered, because it was by their intervention, backed by that of Mr. Wardell, that I took office. To be serious, however, I thank Mr. Mansfield for the services he has rendered this day, and in acknowledging my personal appreciation of the same I must say I feel it a great distinction to hold this, the first Certificate of an Institute which I am certain is destined to be an element of much good to this young nation.

Mr. THOS. ROWE [*F.*].—Mr. President and Gentlemen, it has been a very great pleasure to me, and has afforded me a great deal of gratification, to be present and to witness what has taken place this afternoon. It is, indeed, a red-letter day, on which we have become engrafted, as it were, on the parent stem. I trust that this Institute will bear good fruit, and that this alliance will be the means of bringing about a better state of things than has hitherto existed; and I again express my pleasure, and congratulate you, Mr. President, and all the members upon attaining the position that this Institute has assumed to day. I think it is an important matter to be connected with such a grand old Institute, and one which is so splendidly conducted as the Royal Institute of British Architects. I trust, Sir, you will live long to enjoy and see the results of the labours which have brought about this happy event to-day. I am also glad to see our friend Mr. Mansfield with us to-day.

Mr. G. J. OAKESHOTT [*A.*].—Mr. President and Gentlemen, I did not expect to be called upon to make any speech this afternoon; indeed, I feel that my tongue is tied, as it were, in making any reference to the alliance of this Institute with the Royal Institute of British Architects, for the reason that I am an Associate of that body myself, and in courtesy to the existing local Secretaries I cannot say anything on the subject just now, not having received any official communication in reference to the alliance either from that body or its Secretaries. You all know perfectly well that no kinder feelings could possibly be felt than those which exist between the Sydney Architectural Association and this Institute; and as President of the Association I offer to Mr. Hunt, and to the whole Institute, my congratulations upon what Mr. Rowe calls this "red-letter day" in the history of the Institute. With reference to the unprofessional conduct of some members of the Royal Institute of British Architects to which Mr. Hunt alluded, I was very pained to hear that such existed. If there are such members—and I must frankly say, in honour of that grand Institute at home, that I do not know of any such—I most heartily agree that such a state of things should be altered. I would also like to endorse most heartily Mr. Hunt's eulogium on Mr. Arthur Cates at home. Young man as I am, having passed through the examination, I speak somewhat feelingly on the subject of Mr. Cates. There is no one who takes up and encourages young men more than he, and there is no one who holds a higher position in the kind thoughts of the Institute at home.

Mr. G. P. JONES.—Mr. President and Gentlemen of the Institute of Architects, as President of the Builders' and Contractors' Association, I am sure I voice the feelings of the Association I represent when I tender my most hearty congratulations on the event we are assembled to celebrate. Mr. Rowe has said that the public do not understand the difficulties with which architects have to contend, but I think there is one body of the public, and a pretty large one too—the builders and contractors of N.S.W.—who fully understand and realise these difficulties. I may say that in the Association of which I am President we feel that whatever honour may be conferred upon this Institute by its alliance with the Royal Institute of British Architects, our interests are so allied to yours that the honour is reflected upon ourselves; and with that feeling we may express our congratulations, and you may receive them as coming in earnest. There is no body of people with whom we are more desirous of cultivating a closer fellowship than that of the architects. We know that at times our opinions vary; but we recognise that in the minds of the architects the ideas are first conceived, and that we are simply the hands that complete the work. At the same time, however, we also recognise that, although the mind may conceive, the work would never be done if there were not hands to execute it. We, Mr. President and Gentlemen, sincerely and heartily convey to you our congratulations on your honourable elevation to the position of being allied to the Royal Institute of British Architects.

Mr. Hunt thanked the President of the Builders' and Contractors' Association for his remarks, and then referred with approval to the labours of those associated with him in the work of that afternoon's Meeting, specially mentioning Mr. Amor, who had prepared the die for the seal

of the Sydney Institute, and the Medallions presented by the President. Mr. Hunt also acknowledged the services of Mr. Oliver Bolton, Messrs. Tarrant Brothers, and Mr. John Scott.

THE CHICAGO CONGRESSES

TO BE HELD MAY–OCTOBER 1893 INCLUSIVE.

The Council have recently been favoured with letters from Monsieur A. Barthélemy, of 32, Boulevard Haussmann, Paris, on the subject of "The World's Congress Auxiliary of the World's "Columbian Exposition of 1893." This gentleman, who was in London last week, called at the Institute to explain the object he had in view, and he has since addressed to the Secretaries the following letter:—

London, 29*th April* 1893.

GENTLEMEN,—I had the honour of going to Chicago last year as acting Commissioner of Fine Arts for France, and during my stay there I became very much interested in the work of the Congresses which are being planned for next June and the following months, and which will be as an exposition of ideas by the side of the exhibition of things.

There will be seven Congresses on Art matters: 1st, Painters; 2nd, Sculptors; 3rd, Architects; 4th, Engravers; 5th, Photographers; 6th, Decorative Arts; 7th, on the Organisation of Art. This last Congress was decided upon at my suggestion. I pointed out that in the first six there was no room for those people, more numerous every day, who, without being professional artists, are interested in art—I should even say, are necessary to the progress of art: art critics, curators of museums, directors of schools, and so on; that many questions were now discussed with almost passionate interest—questions bearing on the organisation of museums, on the teaching in art schools, in a word on the government of art, and that those questions might be usefully discussed by a special Congress.

The members of the General Committee on Art Congresses were kind enough to approve of my proposal and to appoint me one of their number, with the special mission of organising the Congress which I had suggested, and also of making known to all those who on this side of the water are interested in any of the various manifestations of art the strong desire on the part of the organisers of the World's Columbian Exposition to see them join in the Congresses which I have mentioned.

I am fully aware of the difficulty for the various societies of artists to send special delegates to Chicago, but many artists will go there on their own account, and they might usefully accept to represent the societies they are members of. All the vital questions in every branch of art will be discussed in such a broad spirit that none of the artists who consent to represent some society needs to feel narrowly bound by the delegation he has received.

I should feel, Gentlemen, deeply obliged to you if you would kindly help me in the work which I have undertaken. The Directors of the World's Columbian Exposition mean to make those Congresses a success, and I will forward their views in every possible way; for I believe that art is the common ground on which we can all meet, and that a great benefit might be derived from a stronger organisation between all those who love art, and who mean to give it, in their social and personal life, the great place which is its due.—I remain, &c., A. BARTHÉLEMY.

The Secretaries R.I.B.A.

The Congresses referred to in the foregoing letter take place in August, or, to be strictly accurate, commence on the 31st July; and at the same time the subjects of Engineering, Government, Law Reform, Science, and Philosophy are to be discussed by other and separate Congresses. In June there are to be Congresses on Temperance, Moral and Social Reform, Commerce, and Finance; in July, on Music, Literature, and Education; in September, on Labour, Religion, and Sunday Rest; in October, on Public Health and Agriculture.

The Council of the Institute are desirous of hearing from any members who are about to visit Chicago, and they will be much obliged to those, who may have already started, for information respecting the great exhibition in that city, and the Congresses held in connection with it. Colonel R. W. Edis, F.S.A. [*F.*], who was to have reached Chicago in time for the opening of the Exhibition, is kindly acting there as the representative of the Institute, and Mr. Banister F. Fletcher [*A.*], Holder of the Godwin Bursary, goes there for purposes of special study.

The Royal Gold Medallist.—Mr. Richard M. Hunt, *Hon. Corr. Member* (New York), has written expressing his intention to be present in London on the 19th prox., for the purpose of receiving the Royal Medal from the hands of the President of the Institute. An American journal, *The Sun*, in its issue of the 2nd ult., thus refers to the award:—The Gold Medal of Queen Victoria, awarded to Mr. Richard M. Hunt by the Royal Institute of British Architects, is a compliment to a distinguished American, of which his countrymen may well be proud. Americans so often rise to prominence by the acquisition of immense wealth or by marriage alliances with great people abroad that transatlantic honours seldom carry much weight with them on this side. But when a man is singled out as the "most worthy exponent of his pro-"fession," and receives a medal won by his own unaided abilities and acquirements, all who are associated with him by ties of kindred or country must feel that they, too, are honoured in the tribute paid to him. . . . . It is pleasant, too, to note that American architects unanimously acquiesce in the favourable judgment of their British brethren.

The Institute of Builders.—The Annual Dinner of the Institute of Builders was held last evening at the Grand Hotel, Mr. Frederick J. Dove, President, in the chair. Time and space prohibit any further record of it, for the moment, than an announcement of the agreeable fact that it was an exceedingly good one; and that both members and guests appeared specially contented with the pabulum provided both at and after dinner.

OBITUARY.

Joseph Stretch Crowther, *Fellow.*

The family came originally from near Coventry, where at one time his father practised as an architect, but afterwards went to Manchester and was there connected with a firm of decorators. Joseph Stretch Crowther, after receiving a good education, partly at College, was articled to Richard Tattersall, of Manchester, one of the principal architects at that time in the district. After completing his articles he entered the office of a mill architect, and there obtained some knowledge of construction. He then became assistant to, and afterwards partner with, Mr. Henry Bowman, who was at that time just commencing the work, afterwards published about 1845–6 by Bowman and Crowther, on the *Churches of the Middle Ages*. The researches connected with this publication no doubt laid the foundation for that liking of ecclesiastical work which he retained up to his death, and which stored his mind with an endless collection of details and precedents from which he was able to draw at any time. Since the retirement from business of his partner, Mr. Bowman, many years since, he carried on his practice alone. He was a man of singularly retiring disposition, highly educated, and of cultured taste, but difficult to move when he had once made up his mind. His works were mainly ecclesiastical, although he erected a large number of houses, some of considerable importance. Amongst his ecclesiastical works the following may be named:—St. Mary's Church, Moss Lane, Manchester, for Mr. Wilbraham Egerton of Tatton; St. Philip's Church, Alderley Edge, the spire of which is very fine; St. Alban's Church, Cheetwood, Manchester; Scunthorpe Church, Lincolnshire, for Lord St. Oswald; Parish Church, Littleborough; St. Mary's Church, Crumpsall; St. Andrew's Church, Eccles; Rebuilding of Parish Church, Bury; Restoration of Broughton Church, Lincolnshire; of Parish Church, Kendal; of Parish Church, Rochdale; and of Parish Church, Stockport; Rebuilding of portions of, including new tower to, Ashton Parish Church; new tower to Parish Church, Lymm, and new chancel to Parish Church, Mobberley. Also the completion of the restoration of the Manchester Cathedral, which, although it has not escaped adverse criticism, remains a good specimen of careful restoration and reproduction. Mr. Crowther, at the time of his death, was engaged in compiling a *History of the Manchester Cathedral*, which it is believed is very near completion, if not in the publisher's hands.—JOHN HOLDEN.

R. Herbert Carpenter, F.S.A., *Fellow.*

[*In Memoriam.*]

It is allotted to very few men to play so distinguished a part in the world's affairs as to claim public recognition for benefits conferred on mankind. To the many who play a less conspicuous part, but of equal service to their fellow-creatures, it too often happens that a career of usefulness comes to a close, unhonoured and unsung. Let it not be said that the gentle, unpretentious, and well-spent life of Herbert Carpenter, who was laid to rest last Saturday week, has closed without a passing notice of work well done, and of success honourably achieved. From the time that he left Charterhouse School his life was devoted to the study of architecture, for which he had a marked aptitude; and under the tuition of his late father's partner, Mr. Slater, with the assistance of Mr. Ingelow, a former pupil and, at that time, an assistant in the office, he never lost an opportunity, either at home or during his many travels in other countries, of adding to his stock of knowledge, and making himself acquainted with the methods employed in other styles than that which circumstances had made peculiarly his own. In his younger days the Gothic revival had become an established fact, and few men contributed more to maintain this revival than the elder Carpenter. He was one of a small band of earnest thinkers who caught the true spirit of mediævalism, and left behind him a reputation which the successors to his practice have faithfully upheld for more than thirty years. Enthusiasm is a quality essential to success in every vocation, and Herbert Carpenter possessed it in a marked degree. In everything he undertook, whether it were his own professional work, or a question for archæological inquiry, or the work of the Incorporated Church Building Society, of which he was an active member, or of the Institute in which recently, as Member of Council, he took the warmest interest, or in the hours of recreation passed with that social fraternity known as F.A.B.S., his zeal and activity were unbounded; and his eagerness to be of use to others and to promote the art that he loved so well, showed itself on all occasions. It is unnecessary to speak here of his numerous public and private works, executed during a period of more than thirty years in conjunction with his attached friend and partner, Mr. Ingelow. They are scattered over the land in many counties, and bear abundant testimony to artistic skill and conscientious labour. Herbert Carpenter has been taken from us too soon, but he has left behind him a long record of good work, and has bequeathed to those who knew him intimately something better and more enduring—a pleasing memory of honourable, disinterested conduct, and of unswerving loyalty to many friends.—ALEX. GRAHAM.

The late George Pownall.—The decease, on the 30th ult., of Mr. George Pownall, of 29, Parliament Street, S.W., at the age of eighty-five years, is announced. Mr. Pownall at the time of his death was the oldest Fellow but one. He was elected an Associate in March 1840, and a Fellow in April 1843, so that he had completed his half-century of Fellowship.

The late John M. Cory.—Mr. Fredk. M. Gratton, [*F.*], of Shanghai, writing on the 3rd March, sends a copy of the remarks made by the Ven. Archdeacon Moule at the funeral of the late Mr. Cory, in the course of which the Archdeacon said:—Many words will not be required to express our sorrow at the loss of a kind and genial friend, and of a professional man identified so long with the material growth of Shanghai.

CHANGES OF ADDRESS.

[See *The R.I.B.A. Kalendar*, 1892-93.]

FELLOWS.

1891 Ardron: Arthur [52, High Street, Watford], 39, Victoria Street, Westminster, S.W.
1881 *Brydon: John McKean, 77, Newman Street, W.
1867 Crossland: William Henry, 18, Gt. George Street, Westminster, S.W.
1891 Dodgshun: Edward John, 2, Park Row, Benson's Buildings, Leeds.
1887 †Evans-Vaughan: Charles [Milford-on-Sea, near Lymington, Hants], 25, Lowther Arcade, Strand, W.C.
1889 Harrison: William Henry, 66, Victoria Street, Westminster, S.W.
1887 Powell: William Henry, Field Street Buildings, Durban, Natal.
1892 Taylor: John William, 31, Westgate Road, Newcastle-on-Tyne.
1891 Withall: Latham Augustus, F.S.I.; Jewry House, Old Jewry, E.C.
1881 Witherington: Walter Seckham, 33, Great Tower Street, E.C.

ASSOCIATES.

1889 ‡Andrews: Francis Baugh, 102, Colmore Row, Birmingham.
1892 ‡Baker: Francis Spence, The Janes Buildings, corner of King and Yonge Streets, Toronto, Ontario.
1882 Ballard: William Washington, F.S.I.; 12, Portland Terrace, Regent's Park, N.W.
1881 Battye: Joseph, 2, Upper West Grove, C. on M, Manchester.
1884 ‡Beale: Robert John, F.S.I.; Westminster Chambers, 9, Victoria St., Westminster, S.W.
1891 ‡Bedford: Francis William (*Ashpitel Prizeman* 1890, *Owen-Jones Student* 1891 & 1892) [8, Princes Street, Westminster, S.W.] 12, East Parade, Leeds.
1890 ‡Body: Arthur, P.A.S.I.; 15, Princess Square, Plymouth.
1892 ‡Budgen: Henry, 18, St. Mary Street, Cardiff.
1884 ‡Cazalet: Charles Harvey Hinrich, 11, Thirlestane Road, Edinburgh.
1882 Chastel de Boinville: Charles Alfred, Evedon Cottage, Kingston-on-Thames.
1882 Chastel de Boinville: William, 4, Marlborough Road, Plymouth.
1891 Coward: William Gratus, Imperial Chambers, 16, O'Connell Street, Sydney.
1891 ‡Cressall: Walter Thomas, 2 Victoria Chambers, West Stockwell Street, Colchester
1888 ‡Dickson: George Arthur Hamilton, The Rand Club, Johannesburg, South African Republic.
1882 Duffield: William Henry, 34, Queen Street, Cannon Street, E.C.
1882 Durrans: Thomas, 1 Cornwall Terrace, N.W.
1886 ‡Granger: Frank Stephen, M.A., D.LITT. Lond. (*Holder: Godwin Bursary* 1889); [2, Cranmer Street, Nottingham] University College, Nottingham.
1881 Green: Frederick George, The Olderfleet, Collins Street, Melbourne.
1892 ‡Helsdon: Horace, 14, St. Edmunds Terrace, Primrose Hill, N.W.
1892 ‡Hindle: Charles Albert, 221, Whitefield Road, E., Liverpool.
1891 ‡Jackson: Arthur Blomfield, 7, Bedford Row, W.C.
1882 Judge: Mark Hayler, 7, Pall Mall, S.W.
1891‡†Knight: John Albert Gill, 54, Kimberley Road, Clapham, S.W.
1892 ‡Littler: Frank Edmund, 1, The Grove, Kettering.
1875 †Lovegrove: Henry, F.S.I.; District Surveyor of South Islington, Shoreditch, and Norton Folgate; [314, Old Street, E.C.] Eboracum, Herne Hill, S.E.
1892 ‡MacLaren: Thomas (*Pugin Student* 1887), Post Office, Denver, Colorado.
1882 Minty: Edward Arden, 28, Fulham Road, South Kensington, S.W.
1882 Muirhead: Thomas, Burns' Chambers, 31, Market Street, Manchester.
1892 ‡Ough: Arthur Henry, 84, St. Paul's Churchyard, E.C.
1887 ‡Paterson: Henry Leslie, Imperial Chambers, 18, Norfolk Row, Sheffield.
1876 Reed: Frederick Henry (*Inst. Medallist* 1872); [9, John Street, Adelphi, W.C.], Grove Villas, Belmont Hill, Lee, S.E.
1891 ‡Sim: Edward Howley, Conservative Club, St. James's Street, S.W.
1877 Thoms: George Eastlake, M.INST.C.E.; 3, Cumberland Road, Liscard, Cheshire.
1892 ‡Tiller: Albert Edward, 28, Hill Lane, Southampton.
1887‡†White: William Henry, 2, Vere Street, Cavendish Square, W.
1891 ‡Wigglesworth: Herbert Hardy, 9, Barton Street, Dean's Yard, S.W.
1889 ‡Wigram: Edgar Thomas Ainger, B.A.Cantab.; 61, Lupus Street, S.W.
1887 ‡Wills: Herbert Winkler, [Bank Chambers, Cardiff] Heathfield Chambers, Swansea.
1890 ‡Woodington: Harold Arthur (*Scientific Masonry Prizeman* 1889), 72, Brigstock Road, Thornton Heath, Surrey.

HON. ASSOCIATES.

1888 Backhouse: Benjamin, Hôtel Métropole, Sydney.
1878 Jekyll: Lieut.-Colonel Herbert, C.M.G., Royal Engineers; Munstead, Godalming.

HON. CORR. MEMBER.

1886 Hunt: Richard Morris (*Royal Gold Medallist* 1893), Corresponding Member of the Institut de France; Metropolitan Building, 23rd Street and Madison Avenue, New York.

"The Wenhaston Doom."—Mr. E. D. Drury [*F.*] writes calling attention to the remarkable painting of the Judgment, said to have been concealed for three centuries, and only discovered last September, in Wenhaston Church, Suffolk. This painting is now on exhibition at St. James's Hall, Piccadilly, where the Rev. J. B. Clare, Vicar of Wenhaston, attends daily (except Sundays) for the purpose of giving information to visitors.

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SESSIONAL NOTES.

The Qualifying Examination.

The Council have definitely decided to hold the first of the "Final" Examinations, being the third and last stage of the Progressive Examinations which have been in force for some years, in the Spring of 1895. On and after the 1st January of that year, therefore, no one will be admitted to the present Examination qualifying for candidature as Associate except by Special Resolution of the Council; or, in other words, the Qualifying Examination now in existence will remain in force only until the close of 1894. It is the more necessary to give prominence to this announcement, as in *The R.I.B.A. Kalendar* 1892–93, at page 194, it is stated that "This Examination [the single one qualifying for candidature as "Associate] will be conducted in its present form until the end of 1893, after which "the Progressive Examinations (Preliminary, Intermediate, and Final) will be in full "operation. Candidates for admission as Associates, who may be architects in "practice, can then only be admitted to a Qualifying Examination by special resolu-"tion of the Council." But the period of delay is now extended to the end of 1894; and, on and after the 1st January 1895, admission to candidature as Associate will be obtained, except in special cases, only by those who successively qualify for the grades of "Probationer" and "Student" by passing the *Preliminary* and *Intermediate* Examinations, and who then enter themselves for and pass the new *Final* Examination.

Architects' Registration Bill.

The Petition authorised by the Annual General Meeting, held on the 1st. inst., against the Architects' Registration Bill, which was down for second reading on the 10th inst., was presented that day by Sir Edmund Lechmere, Bart., M.P., who had previously moved its rejection in accordance with the usual Parliamentary formula. The second reading of the Bill was, however, deferred until the 11th inst., when, thanks to Sir Edmund, to whom the Council have addressed their hearty acknowledgments, it was again deferred until the 6th prox. Meanwhile, it is to be hoped that influential outsiders, who not long ago appeared to be earnestly opposed to the legal registration of architects, will assist the Institute in urging those Members of the House of Commons with whom they are personally acquainted, not only to block the Bill, but to use every endeavour to make its provisions known—a course of action which cannot fail to secure the opposition of thoughtful men. This Bill of 1893 is not by any means the first that it has been attempted to rush through Parliament. Five years ago a Special General Meeting, held 22nd March 1888 [see

The R.I.B.A. Journal, Vol. IV., p. 209], instructed the Council to petition on behalf of the Institute against the second reading of the Bill then before Parliament, and to pray to be heard by counsel against it; and a very explicit statement was made thereon in the annual report of the Council for that year [*ibid.* p. 274], the Bill having been withdrawn on the 17th April 1888 by the late Colonel Duncan. The next year a Bill, proposed to be cited as "The Architects Act 1889," was read a first time in the House of Commons on the 2nd July 1889, but it went no farther. In 1890 the Council presented a petition, under the Common Seal of the Institute, against a similar Bill, the second reading of which was fixed for the 14th May, and their report of the same, submitted to the Annual General Meeting of the 5th May 1890, was approved and adopted by that Meeting. Since then, in 1891, 1892, and this year, an Architects' Registration Bill has been successively read a first time. With a like regularity a petition against it, under the Common Seal, has been presented to the House of Commons, and reported on by the Council to the Annual General Meeting held on the first Monday of May each year, the said reports having been duly approved and adopted respectively. Since 1889 this Bill has remained precisely the same in principle, and, except in petty details of slight importance, has hardly been altered at all. As in 1889, so in 1893, the proposed measure specially exempts surveyors and engineers from registration; and though, under its provisions, none but "registered "architects" are to be entitled to hold public appointments, or recover charges in a court of law, such restrictions are not to apply to members of the Surveyor's Institution or the Institution of Civil Engineers. By it every description of practitioner will be able to practise architecture, provided that he does not style himself "architect." He has only to obtain admission as a Fellow or Professional Associate of the Surveyors' Institution, or as a Member of the Institution of Civil Engineers, to snap his fingers at the measure, were it ever to become an Act of Parliament—an eventuality which, though unlikely in the end, has nevertheless to be seriously met during the early stages of the Bill.

Monsieur Eugène Müntz.

The career of the distinguished Frenchman, proposed for election as Hon. Corr. Member on the 5th prox., forms a continuous record of useful work well done. Appointed early in life a member of the Ecole Française de Rome, Monsieur Eugène Müntz's first literary efforts were made in the Eternal City. His work in three volumes entitled *Les Arts à la Cour des Papes au XV^e^ et XVI^e^ siècle*, was honoured with the recognition of the Académie des Beaux-Arts (Institut de France). His more recent works are a History of Tapestry, in collaboration with others; *Raphaël, sa vie, son œuvre, et son temps*, which has been translated into English; *Les Précurseurs de la Renaissance*, perhaps his best book; and the well-known *L'Histoire de l'Art pendant la Renaissance*, of which two volumes are published. Besides these, M. Müntz has printed a Guide to the Ecole des Beaux-Arts in Paris, of which institution he is the Curator—a book of the utmost value, not only to those architects who have graduated in the School, but also to the public, on account of the importance given in it to the educational treasures possessed by the School. His History of Art during the Renaissance treats, in the first volume, of "*L'Italie, les "primitifs,*" and in the second of "*L'Italie, l'Age d'Or*;" and other volumes are promised. His work on Raphael has been "crowned" by the Académie Française.

Mr. Alfred Waterhouse, R.A.

The Académie des Beaux-Arts (Institut de France) has elected Mr. Alfred Waterhouse, R.A., *Ex-President*, a Corresponding Member in its Section of Architecture. The Corresponding Members consist both of Frenchmen and foreigners, and equal the Academicians in number, there being fourteen painters, eight sculptors, eight architects, four engravers, six musical composers, and ten laymen. Mr. Waterhouse shares this honour with no other British architect now alive.

ALLIED SOCIETIES IN CONFERENCE AT LIVERPOOL.

Friday, 21*st April* 1893.

Mr. H. Hartley, V.P. (Liverpool), in the Chair.

THE CHAIRMAN.—Gentlemen, I ought to express regret that our President, Mr. Harnett Harrisson, is not in Liverpool, and therefore absent from this very important Conference. I regret this the more especially because Mr. Harrisson has taken the deepest possible interest in the questions which are going to be brought before us to-day. He has been deeply interested in everything that concerns the educational question, and also the division of England into districts, in accordance with the letter which was received by our Society on the 1st of September last from the Royal Institute. I may say, Gentlemen, that for some considerable time the question of the education of the younger members of our profession has been forced very prominently upon us. This, however, seems to be rather a crisis in that question. The Liverpool Society felt so keenly the importance of bringing together the representatives of the Allied Societies of the United Kingdom that, possibly in a rather hurried manner, they have called you together that we may be able to discuss face to face the important questions which are presented to us. With the view of showing to you the process by which we have come to the conclusion of calling you together, I may ask our Secretary in the first place to read to us the letter to which I have referred, received from the Royal Institute, and dated last September.* During our gathering last evening some important speeches were made, especially one from Mr. Cates, and I think that he indicated very fully and very ably the question of education and the action—or the suggestions rather—of the Royal Institute. The question is most important to the whole of the rising generation of architects, for we have too long neglected the practical teaching of our architects on both the scientific and the artistic side. We have left our youths—our pupils—to evolve their art from their own inner consciousness, rather than give them lines upon which they should be educated, and upon which they could formulate their practice in the future. I do not think, Gentlemen, that I need weary you with any recapitulation of the questions which were brought before us last evening; but after our Honorary Secretary has read the letter I will ask you to give the matter your fullest and most earnest attention, so that this Meeting may not be a futile one, and that we may return to our several duties feeling that if we have not accomplished something, we have at least set the ball rolling; that there will come a practical issue out of our consideration, and that we may be able to assist the Royal Institute in formulating a scheme which will be not only for our own benefit, but for the benefit of the rising generation—a benefit which will accrue to the whole of the people of England, by bringing into being a better type—a better educated class—of architects. I now call upon our Secretary to read the letter to which I have referred. [The letter, which was read, is printed at p. 310 *ante*.] I think, Gentlemen, that that letter very clearly defines the questions for our consideration to-day. There have been formulated some resolutions for submission to you, and I shall call upon Mr. Salomons, the President of the Manchester Society, to move the first.

MR. SALOMONS (Manchester).—Mr. Chairman and Gentlemen, the resolution I wish to move is as follows:—"That this Conference of delegates "from the provincial Architectural Societies in "alliance with the Royal Institute of British "Architects, has heard with great satisfaction the "proposal to divide the United Kingdom into "architectural provinces, which, if successfully "carried out, will materially advance the interests "of the profession throughout the country." I have not much to say on this subject. To me it is self-evident in every way that such a course must be desirable in the interests of ourselves, and of the profession at large, and even, I may say, of the public. That this want has been felt, and has been growing, we all know. We seniors, looking back to the past time, know how we had to pick up our knowledge by self-education, and with what difficulties we had to contend. Those, of course, will be obviated by our system of education, which will be so materially increased and improved by this centralising movement. Indeed, I can only say it is so desirable that I shall be very much surprised if there is one opinion contrary to what I have stated. It is the natural course to take as to the division of the country; and we in Manchester, within a fortnight, I think, after we received that intimation, made our map. As your Vice-President has said, we have rather encroached on this district; but my idea is, as representing Manchester, that we have not the slightest wish to take more than our fair district. We wish to be simply one spoke in the wheel, to complete the intention of this Conference, and to make the thing work pleasantly. It does not much matter which district it is, so long as we get the whole country fairly divided and worked amongst the various societies. I therefore really submit this motion *pro formâ*, because I expect the whole of the representatives here will be in hearty concurrence with our views, and that there will be no opposition of any kind. I think one point has been overlooked as to the advantages of this movement; one great advantage is the assistance that the Society can render to its individual members. Constant disputes with builders and others are cropping up, and it is a great advantage to have a centre to which those disputes can be referred; and, as a result, matters generally will go on more smoothly. I think that is an important element in the effect of this arrangement.

MR. ALFRED CULSHAW (Liverpool).—Sir I have much pleasure in seconding Mr. Salomon's motion,

* See p 310 *ante* for this letter and a condensed report of the Conference, containing the names of representatives present, and their four resolutions.

THE CHAIRMAN.—I should like to hear—if there is to be any discussion on this question—the views of some of the delegates from other Societies. If there are any questions which the delegates would like to ask Mr. Emerson, or Mr. Cates, or Mr. Slater, I am sure they will be only too glad to give any information they possibly can to assist in our deliberations.

MR. ARTHUR CATES.—We have, Sir, in the United Kingdom, thirteen Societies now allied to the Royal Institute; and it is quite possible that two or three more in the South and West of England and in Wales may ultimately be established. The present Societies, I think, will very fairly appropriate the whole of the Northern and Midland counties. As regards Scotland, the Dundee Institute will, I believe, take the North of Scotland, and Glasgow will take the West. At present we have no representation in Edinburgh; but I have good reason to hope that the result of our proceedings will be that a strong Society will be formed at Edinburgh which will take the East Coast of Scotland, meeting there the Northern Architectural Society, which takes the counties of Northumberland and Durham. Then we come down to Leeds, Manchester, Liverpool, Sheffield, Nottingham, Leicester, and Birmingham. In the West Country, Bristol has formed a Society which is already allied to the Institute; and by the indefatigable action of one or two members of that Society, I hope that Bristol will take the whole of the Western counties, including Gloucester and Somerset. There is a Society in Devon; it is at present not a very strong Society, but probably the action which is now being taken will give an impetus to it, and it may include Dorset, Devon, and Cornwall. Then the position that London occupies will enable it to take the home counties; and I think that pretty well appropriates the whole country. What will be done on the other side of the Channel I cannot say. We have here two representatives from the Royal Institute of the Architects of Ireland, and whether Dublin will propose to take the whole island, or whether there will be a division between Dublin representing the centre, Cork the South, and Belfast the North, I cannot say. I am therefore not able to give a definite answer as to the ultimate number of districts, but probably there will be 15 to 16 in all.

MR. THOMAS DREW, R.H.A. (Dublin).—With regard to Ireland, Sir, we should not probably see our way to more than Dublin being the centre for the whole country at present. I do not think that Cork and Belfast are sufficiently consolidated as Architectural Societies at present.

MR. BERTRAM BULMER (Leeds).—Sir, I should like to ask if it is the intention at the present time, in mapping out the country, to map out the whole island, or to leave any portions of it for what I may call future extension, and for the development of new Societies?

MR. CATES.—London would appropriate the whole of the Southern and Eastern parts of England, which have not been claimed by any of the existing non-Metropolitan Societies. If at any future time centres such as Oxford, or Cambridge, or Southampton formed Societies of sufficient strength, it would be very easy to carve out districts for them from the central district, which, until those Societies are formed, will be the home district of the Royal Institute.

MR. HENRY L. BECKWITH (Liverpool).—Sir, there is one question which I was discussing with the Bristol representative just now; and that is the question of Wales. There appears to be no Society of any sort in Wales. We are at the north of Wales, and Bristol is at the south end. The question is whether we should cut a line through Wales, and each take half; or whether we should confine ourselves to a portion of North Wales, and Bristol to a portion of South Wales. I think it would be a mistake for any Society to attempt to cover too large an area; and it is a question whether it would not be better to wait, perhaps, until they have started a Society in Shrewsbury.

MR. SLATER.—Might I not suggest, Mr. Chairman, that this is really a question of detail to be settled afterwards?

THE CHAIRMAN.—I think that is so. I think we are only speaking of general principles now, rather than of details. In conference afterwards, the Presidents and Secretaries of the various Societies will be able, with the assistance of the Royal Institute, to map these districts out more clearly. I have just received a letter from our President, Mr. T. Harnett Harrisson, which I should like to read to you.—"Dear Mr. Hartley: "It is impossible for me to be present at the "Conference. It was an extreme disappointment "that I could not get back from town in time "for the Dinner; and a still greater cause of "regret that I cannot attend to-day. I look upon "the event as the most interesting one of my "Presidency."

The resolution, having been put, was carried unanimously.

MR. BULMER.—Sir, I am asked to move a resolution so fully in accord with my own views that if it had been drafted by myself I could not have been more satisfied with the wording and spirit of it; and I have every confidence that the views therein expressed are those entertained by a very large majority of the Society which I represent. I will read the motion with a feeling of confidence that it will meet with the unanimous support of this Conference. "That by the establishment "of such architectural provinces the architec-"tural Society of each district will have its "local centre, and in time, by absorbing within "its centre all architects of repute, bring into "harmonious and united action the scattered "and unorganised members of the profession; "strengthen the position of all local practitioners "both professionally and socially; and enable "arrangements to be made for extending through-"out the country the advantages of the progres-"sive examinations now established by the R.I.B.A., "and by promoting a systematic organisation for "educational purposes, and utilising and develop-"ing such means of instruction as may be avail-

"able at and in connection with such centre, "raise the standard of architectural education in "all parts."

Mr. Albert E. Murray (Dublin) seconded the motion.

Mr. W. H. THORP (Leeds).—Mr. Chairman and Gentlemen, there are one or two points that I should like to raise on the question of architectural education. One understands that in all probability, in connection with these centres, Manchester will form one district, Liverpool another, and Leeds possibly another. Perhaps I may leave out the southern districts for the present. With regard to architectural education, something may be done in order to place it, so far as Yorkshire and Lancashire are concerned, on a rather better basis. We have, at Manchester, the Victoria University, which incorporates the Liverpool College, and Owens College, as well as the Yorkshire College at Leeds. I believe I am correct in stating that in connection with any of those colleges there is no chair of Architecture. I believe that in Liverpool you have a chair of Fine Arts; in Manchester I don't know exactly what there may be—whether any teaching of architecture exists. In Leeds we cannot say that we have a Professor of Fine Arts, but at the same time we have a teacher who is on the staff, and who has a school in connection with the college under his supervision; but his teaching is chiefly directed to art instruction to students who work more in connection with the textile industries. Now, it appears to me that possibly the time may be coming—I don't say it is ripe at present—I am not quite sure whether it is, as far as we are concerned in Yorkshire—when, in connection with the Victoria University, it would be well to have systematic instruction so far as architecture is concerned. I think most certainly that there ought to be a chair of Architecture; and that architectural education, as far as certain branches are concerned, should be put upon a much more satisfactory basis. Speaking of Leeds, I may say that our experience has not been altogether satisfactory. We have attempted to form classes at the Yorkshire College for certain branches of architectural work, hoping that they might be well attended by our students; but the result, so far, has not been very gratifying. I think the chief reason has been that the teaching has not been directed more particularly to subjects looked at from an architectural point of view. For instance, with regard to construction generally, we have a Professor of Engineering. I know that one of the former Professors of Engineering undertook a class, but the instruction given was more suitable for civil engineers than it was for architects. In various other branches of physics, and so on, I don't know that the information given there has been exactly what one would recommend. In fact, if the thing is to be done properly, the architects should memorialise the Council of the college, or university, and state their views as to what amount of teaching would be applicable for architectural students; and then it is possible in time that the instruction given will be suitable to the requirements of the students wishing to enter for our Examinations. So far as our students in Leeds are concerned—as far as they have entered for the Examinations—I am correct, I think, in stating that the men have been confined to a few offices where the principals take an interest in the young men under their supervision. They encourage them to make use of, to study for, the Institute Examinations, and they make use of the Institute Forms of Articles of Pupilage,* and avail themselves of the conditions which are provided in the Institute's scheme of education and the Examinations conducted by it. I wish that we could get up more enthusiasm with regard to education generally, and with regard to students of architecture availing themselves of these Examinations more than they have done. Perhaps in time, as the Examinations become more widely known, the students will feel it their duty to enter for the Examinations, and to seek for some diploma of qualification. I think that this question of placing architectural education upon a more systematic basis is one of the things that we should seriously consider.

Mr. WM. EMERSON.—I should like to say, Sir, that I presume that the Examinations established by the Institute are intended to influence students as to the necessity of a better education, and they naturally lead on to this question of providing some regular, organised, and comprehensive system for the whole of the country—so that students in any part of the country should have the means of education at their disposal. The question that Mr. Thorp has raised is, of course, a question of detail, which must be, I presume, discussed at length in the various districts over which the particular Society of a district happens to be the presiding body or centre. It would be naturally a matter of experiment to a great extent, but I think the best plan, or one of the best plans, would be to utilise the available institutions in that district, and endeavour to give them a proof that the Allied Societies, which I presume could hardly constitute themselves teaching bodies, would do all they could, by influencing the teaching bodies in their district, to obtain architectural chairs, and a certain curriculum for students preparing for the Institute Examinations. The object of the Institute Examinations is to encourage and stimulate study in the rising body of architects. The means of education, of course, is a natural detail which must be left to the Allied Societies themselves to settle. A memorial which was recently presented to Her Majesty's Commissioners for Scottish Universities—a memorial signed by forty-four members of the profession in practice in Edinburgh—to establish a course of University Education in Architecture to prepare students for the Examinations of the Royal Institute, is given in *The R.I.B.A. Journal*

* These Forms include a proviso that the principal shall allow his pupil such absence as may be deemed reasonable for the purpose of attending Lectures, Classes of Instruction, and the R.I.B.A. Examinations.

[Vol. VI. N.S. No. 19, 28th Aug. 1890, pp. 401–2,]; and lately in London also, the Royal Institute was represented before the Royal Commission on the Gresham University, urging that a chair of Architecture and a complete course should be established in London, but whether this will be adopted or not remains to be seen. There seemed to be amongst some of that body a strong feeling that architectural education should be delegated to the engineering professors, to which, of course, all those members of the Institute who gave evidence before this Commission were strongly opposed. There may be a chance that we shall get a chair in this Gresham University, and I think that would be a very good reason for very large towns like Liverpool, Manchester, and Leeds and Sheffield applying to their local teaching bodies for similar chairs.

Mr. SLATER.—Perhaps some members of the Conference have lost sight of some of the points in this long resolution. One is that the step which it is proposed that the local Society should take will bring into harmonious action the scattered and unorganised members of the profession. That is an extremely important thing, and more important in the provinces than in London. We have seen repeatedly that there is in the scattered parts of the provinces a lamentable want of *esprit de corps*, and if it is only generally recognised that the Society which is at the head of the local centre will take up professional matters, a great deal will be done to get more identity of practice amongst the various members of the profession in the country; and I am quite sure that many points of professional etiquette, as I may call it, which are sent up to us in London, would be much better dealt with in many cases by the provincial Societies, because they are more in touch with the details of practice in the country than we are in the metropolis, and I have no doubt that if this is carried out it will raise the standard of the local practitioners both professionally and socially. I would urge the members to do the utmost they can to educate the public with regard to the education of architects. It is not until the architect gets hold of a pupil that he comes into touch with those of the public who wish to make their children architects; and I want to impress upon those parents that the architectural profession is one that requires a good education—that requires as much training as other professions—and that it is a most unwise policy to take a boy away from school at the early age of fourteen or fifteen, because he has got a talent for drawing, and put him with an architect, thinking that the latter can make an architect of him. That youth wants as much training as if he were going to study for a solicitor or an engineer, and the more we impress this fact upon the public, the better it will be for the profession at large. I say that the only way of carrying this out will be by utilising the means of instruction which exist in various places. I believe that, at the Bristol University College, there is a class for architectural subjects, and I think that all the educational bodies throughout the kingdom would, with a very little pressure, be pleased to do so much,—only hitherto they have not felt the necessity for it; and as soon as you teach them that necessity, and that there is a chance for a good number of students attending those classes, I do not think you will have much difficulty in getting assistance from the various teaching bodies to promote objects which we all have in view.

Mr. SALOMONS.—I wish to remark that our Manchester Society has established a teaching class. We employ a gentleman to teach the students four nights a week, regular teaching. It may be interesting to know that we are almost, I may say, in advance in doing that. I think also the idea that a chair of Architecture should be established in the Victoria University of Manchester is a very good one. I have even mentioned it to the Principal, and I think it will work.

The CHAIRMAN.—On behalf of the Liverpool Society I should make this explanation, that for three or four years we have had lectures by a professor of art on architecture, and also by a professor on hygiene, to assist in the education of our architectural students and pupils. We have also an engineering school where there are classes, and students may attend; and further than that, within the last two or three months we have approached the Senate of this University, and we have held a meeting with the Senate, asking them to establish here a chair of Architecture. The scheme is perhaps rather a large one, but I think that there is no question that if we can accomplish what we have in view, we shall be forming a very large educational centre of architectural students in the Northern district. We embrace practical architecture, and shall lecture on, and shall teach, all subjects that are embraced in the R.I.B.A. Examinations—the history of architecture, materials, and so on. Then we propose to have a drawing school, and further, a studio for modelling; and that, added to the engineering school, which is already an accomplished fact, will, I think, place us in a very strong position, and enable us to give an exceptional education to the students of architecture. Indeed, if we can possibly accomplish it, we shall, I have no doubt, receive the co-operation of the Allied Societies round about us, and be able to assist and promote the interests of the Royal Institute, and of the profession generally.

Mr. HERBERT R. LLOYD (Birmingham).—Mr. Chairman and Gentlemen, in Birmingham we have been doing something in the same direction in regard to education. We have only just started, but are to a great extent successful. We have managed to work through our present local institutions, and chiefly through our School of Art. We have persuaded the Corporation to establish a professorship of Architecture, and to allow one lecturer to devote himself to that subject; while we have arranged, in connection with his lectures, classes for modelling and technical subjects of professional importance. We have had some thirty or forty men in attendance at the classes during the first year, which I think is not a

bad start. Besides that, we have classes on the voluntary system which was in vogue in London some time back—classes somewhat of a conversational character—with sketching meetings, which seem to be going pretty well through the present session, but I am bound to say this is our first year of a definite scheme, and I cannot yet speak confidently. Our old classes were not successful, and one great drawback was that we tried too much to get the practical side in too strongly. We went to the Masons' College—a technical College at Birmingham,—and fell into the hands of the engineers, and the lectures were exceedingly dry, there is no doubt about that. I think we are in better hands now. We have got our lecturer, a very able man, a Mr. Goodlake. Not only is he a designer, but on the practical side of the question he keeps his men well in hand, and does not allow them to make fanciful designs which cannot be carried into execution. We are exceedingly fortunate in having a man who is an able lecturer, and able in other ways too. I think myself, however, that we want to extend our scheme very considerably. Our difficulty is that we cannot get men from outside the town for any precise course of education. It is difficult to get men any little distance away from Birmingham to attend these classes. We have got so far that we have managed to get a certain number of classes that are not evening classes—morning or afternoon classes—established; and we have a certain number of practical architects who support us so far that they will give their pupils ample facilities for attending the whole course; but we cannot get the same facilities from men farther out of town. Perhaps I am a little premature, but it seems to me that we want to get some system in operation similar to that in vogue in the legal profession, where men from the country districts may finish their pupilage career in an office in a central town, —that is to say, if we could get from the country district round Birmingham a young man to come up into a Birmingham office for the final year, it would do him good, and I think it would do us good. Certainly our men from Birmingham have benefited very largely indeed, and are likely to become leading men in Birmingham; and I think the same remark would apply to others. If that view is correct, it would seem to me that the educational system should be grouped in those centres. Taking our own district, it would seem that if Birmingham, Leicester, Nottingham, Derby, and possibly Oxford, be all grouped together, we might have a lecturer on certain special subjects who might migrate from town to town at first, until we had got sufficient power to establish and support lectureships in each town. That would apply, of course, to special subjects; but we want more money at our backs, for one thing, before we can get all the lectureships we should like. We cannot get the Corporation to establish more than the one, but if three or four associations within a certain district were grouped together we might possibly manage to get something more definite done in that way. It is a great difficulty, too, to arrange for the continuity of the classes; although we have managed to get them all into a single year, there are certain limits beyond which they cannot go, owing to their connection with Government, and the Masons' College cannot go beyond certain limits in any direction. Yet it is desirable that we should have that continuity, so that the students should be able to give all the time they could during their studentship. It looks as if we wanted a separate architectural college; but that can only be evolved after long years of work. We may, however, possibly arrange for joint committees of the associations which are close together, such as those of Yorkshire and Lancashire and the Midland Counties; and if the Secretaries act together we may succeed in working the whole kingdom in the interests of local education.

Mr. CATES.—Will Mr. Thorp communicate to me the difficulties he meets with in organisation in connection with Schools of Art, because I am now in communication with the officials of sundry Schools of Art with a view to see how far they can be brought into line throughout the country to assist in the development of this scheme? I am told that to a great extent this depends on the local committees which have the control of those schools, and that the question of earning "grants" has much to do with it; and I shall be very glad if he will let me know what difficulties he meets with.

Mr. DREW.—There is another point connected with this question. We come here as learners, and without suggestions. In regard to our own case in Ireland, our particular means of accomplishing anything would be through the University of Dublin, which is a largely endowed institution, with many chairs. There are also three Queen's Colleges, which are well adapted to develop into teaching bodies were an architectural chair set up; but what I would like to put before Mr. Cates and others is how immensely our hands would be strengthened if the Institute would state shortly what has been done in other places, in fighting the battle with other public bodies to get them to do something. I have something in my hand which I have tabulated for myself; but we want a Paper that, without going through all the transactions of the Institute, might be brought before the Board of Trinity College, or any other college, in a condensed form, showing that the Architectural Societies had done so-and-so in London, in Sheffield, or elsewhere. I don't think we are imposing a great task on the Institute, and, situated as we are, it would be an incalculable advantage to us. I don't think we shall for a long time overcome the prejudices at Trinity College; but I hope in time, with this information before them from other places, we may be able to get them to take a more favourable view of it.

Mr. EMERSON.—I think it is a very good suggestion, and shall be pleased to lay it before the Council of the Institute.

Mr. E. M. GIBBS (Sheffield).—We have very little, Sir, to report from the Sheffield district. The difficulty lies with the architects themselves, in that we cannot get the privilege for pupils

to attend the classes in the daytime; and the pupils themselves are very loth to give that time in the evening that they should do. What little we have done has consisted in pointing out to the pupils what classes there are for them at the School of Art and the Technical School. We have held two classes in the week evenings — one on the history of architecture, and the other a class of design—and we have had an average attendance of about nine at each of the meetings. Really, I am very much disheartened to think that we are doing so very little. I have no faith in this evening work. I think the work is too serious to be left to the evening. It ought to be done entirely in the daytime, and the pupils ought to have the evenings for more general study, or for any hobby that they like to take up. I do not think we shall do much good with the old pupilage system. I have seen so much and heard so much of it in my own town, where a pupil is taken into an office, and made practically an office-boy at first, and then set to do a little tracing; and where it depends on himself whether he is ever worth more than 30*s.* a week, which is not much to look forward to. I am afraid that we have too small a number of pupils to pay for any great scheme of education. I do not see that the few pupils we have could afford to pay the salary of a Professor of Architecture. The suggestion thrown out that different centres should unite is one that occurred to me. Perhaps we might unite with Leeds and Manchester and Liverpool, and if we could have the same professor to go from one place to another, and spend a few days first at one centre and then at another, we should do something.

Mr. BULMER.—If I am in order, one or two points have occurred to my mind in consequence of the remarks which have fallen from previous speakers. It seems to me that in discussing this question we ought in the first place to try and arrive at some sort of estimate of the aggregate number of pupils whom we wish to instruct; and, having arrived at that conclusion, we should be then able to design our machinery to suit the work in hand. I think we shall feel no hesitation in coming to the conclusion that the number of students in architecture will be very considerably smaller in proportion than are to be found in either the medical profession or the legal profession; and, therefore, any attempt to establish an educational scheme to vie with those provided for those professions would be unsuitable for our purpose. The difficulty we have to meet is to provide a system that shall exactly fit the case. Now, our thirteen various Societies have all been doing more or less in various directions and in various ways to ascertain what system would work most satisfactorily. When Mr. Salomons mentioned the scheme they have adopted in Manchester it struck me as a considerable advance on the one we have had in Leeds. Our education classes there have been most unsatisfactory; they have not worked at all; and at the present time we have been glad to disperse our pupils amongst the various institutions in the town, which scatters them here, there, and everywhere; and it is almost the business of a lifetime to go to the various centres and see the pupils getting their education. That struck me as a most unsatisfactory method, and I was very pleased to hear Mr. Salomons's statement of the system they have in Manchester, where the pupils come to one centre, and are taught by one man on a systematic basis. The points I wished particularly to urge, however, were the necessity of centralising our education rather than scattering it, and taking care that we should adapt it to suit those whom we should be likely to have to deal with.

Mr. MURRAY.—There is a good deal of difficulty, in connection with the education scheme, with reference to a matter which many find a difficulty about, and that is money; but as we are allied with the R.I.B.A. in this work, I may say that we, as professional members, pay a very large subscription in proportion to the gain we get from belonging to the Institute; and it strikes me that there ought to be some central fund, and that if we all subscribe to this parent Institute it in turn ought to take care of its children. Where the poor and necessitous are, they should be doled out a sum of money to assist them, so that in the poorest provincial centres they may, by the aid of a subsidy from the parent Institute, provide a scheme of education which they cannot pay for themselves.

Mr. EMERSON.—I may say there are certain advantages to members of the Allied Societies, in that they do obtain a remission of a certain sum, which, I believe, pays their subscriptions to their own societies. That amounts in the aggregate to a large sum, and there are no very large funds at the Institute's disposal. Of course, there may be, in the future, something in the suggestion made, provided that more members join the Institute, and that we get larger funds at our disposal. I have no doubt, if it were possible to do such a thing, the Institute would be very pleased to help in some way. Unfortunately, our Institute is poor, and is bound to cast about to see where it can save money—as we are doing this very year, on the suggestion of our President, in reducing the cost of the printed matter we issue.

Mr. BERRINGTON.—In the various explanations which have been given as to our professional education in the different towns, little has been said about what we are doing in Liverpool. I think it is deserving of some mention here that we have a very successful class carried on gratuitously by some half dozen members of our Society, which has had the effect of bringing in a considerable accession of student members. I believe they have all derived great benefit from that class; and it is that class that we intend to hand over to the University if they institute a chair of Architecture.

The Chairman then put the resolution to the vote, and declared it carried unanimously, and the Conference adjourned for a short time for luncheon. On resuming, the Chairman called upon Mr. Heazell, President of the Nottingham Society.

Mr. W. A. HEAZELL (Nottingham).—I have great pleasure in proposing "That, so far as the "constitution of the R.I.B.A. and of each Society "may permit, it is desirable that the President for "the time being of each provincial centre shall "have a seat on the Council of the Institute; and "that this Conference do represent to the Council "the desirability of steps being taken to obtain "such modification of By-law No. 25 as will enable "this to be done." This resolution requires very few words from me. It relates purely to an alteration of the By-law 25* of the Institute, which By-law now admits only a limited number of gentlemen upon the Council of the Institute, and it will require this alteration in order to admit the Presidents of the Allied Societies. As to the division of the kingdom into provinces, the project is one in which our Society is quite in harmony with the general view, but as to the details they are rather in the hands of the Institute. There are a number of details dependent, no doubt, on the whole thing which will have to be worked out separately.

Mr. S. PERKINS PICK (Leicester).—I have very much pleasure in seconding the motion. I think, Sir, that in the smaller Societies we shall stand no chance of obtaining a representation on the Council of the Institute unless we have some such amendment of the By-law.

Mr. EMERSON.—The By-law at present limits the number on the Council, representing the Allied Societies, to nine.

Mr. SLATER.—I think I may say that the idea when that By-law was framed was that if the provincial Societies increased in very large numbers it was just possible that the Council might be swamped by representatives of the Allied Societies; but the short experience we have had has proved to us that there is no exceeding keenness to get a couple of days in London on the part of the members of the Allied Societies; and, as far as I am personally concerned, I shall be quite willing to support the proposed amendment of the By-law, as I feel that there is a good deal of invidiousness in selecting one President of an Allied Society, and not another, to be an *ex-officio* member of the Council.

Mr. CATES.—I think there should be no question raised as to whether the London members of the Council might be swamped by those representing the Societies in the provinces. The London members of the Council represent themselves as individuals, but the President of an Allied Society who takes his seat in that chamber does not represent himself only, but represents the interests of the Society of which he is the President, and if the scheme promulgated by this meeting is carried out, he will be an authorised representative of that province of the United Kingdom of which his Society is the local centre. It is extremely important, therefore, that every local centre should be represented on the Council, This is a development which was not anticipated at the time that the By-laws were drawn out, but it is the natural development of the progress we are now making towards the consolidation of the profession throughout the country; and I hope no question will be raised, either in our own Council or in the general body, which will have to deal with the resolution, placing any difficulty in the way. Of course, if any members of the general body think it is not desirable, that view will be expressed, but I do not anticipate that any such difficulty will arise.

The CHAIRMAN.—It seems to me that Mr. Cates has very properly put the answer to this question in the way he has done. It occurs to me that the very action we are taking at the present moment requires this alteration, seeing that we are now co-operating more closely than we have done with the Royal Institute. The Allied Societies are becoming centres, or in other words committees, in the provinces, of the Royal Institute; and as we are going to hold our examinations of students in the various districts, I think it is reasonable that the Allied or provincial Societies should be represented fully upon the Council of the Royal Institute, thus having a voice in the matter. We trust that as time goes on we shall be more intimate still, and become one great family, bound together with one great object, interested in one and the same end and aim; and I don't think there need be any diversity of opinion in the Council, excepting such diversity as may tend to the good of the Institute itself, and to the advantage of the Societies.

The motion was then put to the vote and declared carried unanimously, and the Chairman called upon Mr. W. Edward Jones, Hon. Secretary of the Bristol Society.

Mr. W. EDWARD JONES (Bristol).—I have great pleasure in proposing "That the Secretaries "of the several provincial Societies be requested "to confer together, to consider the boundaries of "each province proposed to be attached to the "respective centres for the purpose of provisionally "defining the same, and then communicating the "same to the Royal Institute." I may state that upon the receipt of the letter read in the earlier stage of the proceedings of to-day, at Bristol, we had a meeting, and the principle contained in that letter was most cordially adopted. The difficulty was of course in defining the area of which it was proposed that we should become the centre; and we received communications from the Secretary of the Devon and Exeter Architectural Society. They suggested that they should become the centre of Devon, Cornwall, and Dorset; and then we thought that Bristol should take in Gloucester and Somerset. We thought that the counties of Somerset and Gloucester would form a very good province, having Monmouth on the one side and Wiltshire on the other; and that left a little piece at the bottom in the right-hand corner, which we thought we might include, the county of Hants. Now, that is rather a large area. We avoid Monmouth, or going into South Wales, because we anticipate that Cardiff will possibly in

* The Council propose to move the required alteration at the Special General Meeting convened for the 5th prox. [see *Supplement*].

the immediate future become an Allied Society; and that would be going close on to their ground. Then I don't think that by that arrangement we should in any way interfere with the Birmingham district, or with anything in the Oxford, Winchester, or Southampton districts. Of course we had no communication from any, and we know of no Society existing there, or we should have communicated with them. If there are any, certainly they are not allied with the Institute. We sent a communication to that effect to the Institute, and also to our neighbours in Devon. Further than that we have done nothing; but we feel that there will be a very grave responsibility and a great deal of work for us to do if we include these different counties I have named. Most of us have, during our practice, met gentlemen practising as architects in the neighbouring counties who are most estimable men, and whom we should be only too glad to associate with ourselves and the Institute. But they are not members of the Institute, and they are isolated and scattered about over these counties. Of course, there will be a great difficulty in discovering the right sort of men. We must not go hap-hazard and include every professional man in a country town; but that is a matter of detail which I had better leave until we get a little further. Now, may I say a few words as to what we propose to do with regard to the general educational work of architects? Some few years ago we had, at the Bristol University College, lectures on architecture. We have not established a chair, but a lecturer in architecture was appointed for two years; but the students were so few that it was found to be hardly worth while to retain the classes. Then the Ancient Society of Merchant-Venturers, at their technical school, have established for two years classes in architecture, with the same result. A mixture of all sorts of young men attend the lectures on architecture, knowing nothing whatever of history to begin with. Then we have, from the practical side, lectures on building and construction by the engineering professor. We also had lectures at our School of Art, a most excellent institution, and very well managed. As far as the School of Art goes, my experience as a lecturer on architecture is, that the instruction given at the School of Art—and I say it with the greatest respect for a very noble institution—the lectures given on building and construction, by a high-class scientific engineer, are practically useless to the student of architecture. I am sure you will take it in the spirit in which I mean it,—some of my best friends are professors and teachers in the best schools, but I found that, not only as a lecturer in architecture, but as an architect in practice, I would rather take the untrained lad and train him in architecture than I would take a student who could not possibly work out certain simple problems without the aid of several sheets of foolscap. We have a very good room at the Fine Arts Gallery, and we endeavour to get our students together; but you know that young men start early now. At sixteen they leave a very good school, and are very good scholars, and are at once put into an architect's office, and we cannot expect a lad who is a young, healthy specimen of humanity to go every night and grind away at his studies. I think he should indulge in outdoor, healthy exercises, if he is to be a man of the world, and a man of business, and to carry the weight of an architect's practice on his shoulders when he is a full-fledged man. Now the difficulty arises with those architects who will not allow their young men to go away in the daytime to attend the day lectures. When the lad is fresh, and knows that it is part of his duty, and that that concession is granted to him by his master, then you will get the lad to work. That is my experience of pupils generally. Now we have lately, within the last month, intended to try, not a series of classes exactly, but a series of conversational meetings. The difficulty we found with the students is, that they are too reverential to their seniors, and we cannot get them to speak or to talk, or appear interested in questions affecting their business. Sometimes, indeed, the seniors talk a little perhaps over their heads, and they cannot understand what they are talking about; so we propose to have a number of conversational meetings, and students are expected to come and give us a ten-minutes' Paper or a series of observations on any point which we shall settle beforehand, with blackboard illustrations. I think perhaps we may be able to get them together in that way. I hope so, and I hope some good will come of it. I have only one question to ask—I am not quite sure whether Mr. Cates spoke upon it or not—and that is as to the details of the provincial scheme, as I may call it—the scheme for dividing the United Kingdom into provinces. May I ask Mr. Cates whether it is expected by the Institute that the provincial centres shall formulate a scheme, or shall we wait for the suggestions of the Institute—I mean with regard to the details to be carried out? It is easy to map out the areas you propose to give to each centre; but there is an enormous amount of detail, I am inclined to think, in the getting the whole scheme into working order. My point, therefore, is to know whether the Institute desire to receive suggestions as to these details, or shall we wait until the greater experience of the Institute suggests something to us?

MR. CATES.—I think it would be extremely desirable that, in the first instance, the proposal Mr. Jones has made should be carried out by communicating to the Institute the result of the Conference between the Secretaries—sending up a map or maps coloured showing the provinces which might be allotted to each centre. Then, as regards the carrying out of the details, I think it would be of the very greatest importance towards the success of this scheme that each Society should subsequently communicate to the Institute its own views, the result of its own experiences, as we have had them just now, and the manner in which it proposes to organise. In each particular case there must be peculiar circumstances, which would render one cast-iron scheme of organisation undesirable. That which may be

exceedingly suitable for Manchester and Leeds, and other populous centres, may not be suitable or expedient in the case of the South or West, where there is a large area, over which architects are scattered more widely; and though the same general principle should pervade the whole, the details of the local organisations must be subject to considerable differences. I think it would not be well, nor would it be proper, for the Institute to attempt to lay down any absolute and arbitrary line which should govern the conduct of the local Societies; or to do more than state general principles which would give them sufficient elasticity in their working. I am quite sure that the Council would be very glad indeed to receive from the several Societies any suggestions that they may make, pointing out the course that they themselves think it desirable to take in their own district. The Committee of the Council would give full consideration to them. It was with that object that this letter of the 1st of September was written, in order to elicit the opinion of the Societies on this question.

Mr. W. EDWARD JONES.—The Bristol Society has a great admiration for the scheme. We have had examples of that during the competitions for admission to the Institute. We have several young men located at a distance from the libraries and facilities for study; they are good men, sound young fellows, of fairly good education; but they have not had the advantage of a library hitherto, or any facilities by which they could keep properly in touch with the educational movement; and, in fact, we find very good material which has not been properly worked. An arrangement of centres, in the West of England especially, would be a boon to the students, if we could in any way come in touch with them more officially. It would be a benefit not only to the pupils but to the profession generally. [Mr. BECKWITH: Is there an association at Cardiff?] I believe there is a Society, but I know nothing of it. However, I don't think that by our present arrangement we should be going too near Cardiff. Wales is practically left to itself now, unless Liverpool, or Birmingham, or Bristol should take it in. We purposely avoided Cardiff architects. We don't want to get in their way. [Mr. BECKWITH: Do you think they would have a Society of their own?] I should think that Cardiff and Swansea would be likely to take in the best part of South Wales. That was our general feeling.

Mr. GIBBS.—I have much pleasure in seconding the motion. I do not think it needs any remarks.

Mr. MURRAY.—As Hon. Secretary of the Dublin Society, that resolution seems to me to be a very satisfactory one in some ways; but it is not, I think, definite enough. How are these Secretaries to communicate with each other, and whose is to be the guiding hand to bring them together? This Conference is satisfactory in every way; but to pass a resolution like that, saying in effect that the Secretaries are to know by intuition when and where they are to meet together, unless we have a guiding hand—to send out circulars and get them together—I do not see how it could act satisfactorily.

Mr. CATES.—I hardly anticipated any such difficulty as Mr. Murray contemplates. For example, as regards Ireland, I think we might leave Ireland out of the question altogether, because we have heard from Mr. Drew that the Dublin Society is monarch of all it surveys; and that the whole of Ireland is under its control. Then as regards the rest of the kingdom, during the proceedings of this Conference, before the formal proceedings were opened, and during the interval, the representatives of the different Societies have conferred together, and most of the questions, or difficulties which were likely to arise as regards boundaries, have, I think, been very fairly met, and I hope in all cases pretty well disposed of; and I think there will be no difficulty whatever in arranging amongst the different Societies a coloured map which will form the basis of that which will be sent up from each body to the Institute. With regard to the manner in which the Secretaries are to be brought together, if this Conference is not sufficient for the purpose, it will be supplemented by proceedings from the Institute itself; for although this is strictly a Conference of representatives of the provincial Societies, and the Institute as a body actually takes no part in the proceedings, we attend here as representatives of the Institute, on the invitation of the Liverpool Society, solely with the idea of assisting by any observations or suggestions that we are able to make. Sir, I think I may say that the promoters of this movement are not promoting it simply in the interests of the Institute itself. It is not with the desire to compel members of the profession to come in and join the Institute, but for the advantage and benefit of the profession at large. The Institute by its Charter is devoted to advancing the interests of architecture; and if it can advance the interests of architecture by enrolling in its ranks every architect in the kingdom it will be very glad to do so; but if from any circumstance certain architects desire to remain outside, the Institute desires to extend to those who may not be members the same professional advantages and safeguards; and although the members of the local Societies may not all be members of the Institute, yet, from the action of the Institute and of the local Societies, we hope that, whether members of the Institute or not, the whole profession will derive great advantage and benefit.

Mr. SALOMONS.—It might facilitate matters if we came to an arrangement here now, as there may be some little differences of opinion as to the boundaries. A member from Sheffield has pointed out to me that Buxton is in our district, and he thought it ought to be in Sheffield district. I maintain that really it is a suburb of Manchester. Hundreds come from Buxton to Manchester every day, and live there. I think that any matter of that kind we might arrange here now. We should agree that the Institute should decide any disputed questions.

Mr. CULSHAW.—On one occasion when I was Secretary here, we had one of those examinations, and one difficulty I had was to provide professional examiners. The Fellows in Liverpool at that time were more limited than they are now, and if the Secretaries in considering the matter would enter into some arrangement whereby Liverpool could trespass upon Manchester for examiners, and *vice versâ*, it would be an advantage.

Mr. CATES.—I appreciate the difficulty Mr. Culshaw has raised; but I think we meet it in the By-law, which provides that the Council shall annually appoint a Board of Examiners in architecture, which shall consist of Fellows of not less than five years standing; but the Council may from time to time appoint such other persons as they may consider necessary, whether members of the Royal Institute or not, to assist the Board in the conduct of such examinations as are required to be passed by candidates for admission to the Royal Institute. That leaves us a very free hand; and it will rest with the Allied Societies when the examinations come into work to make a request to the Council for gentlemen who, whether members of their body or not, are fit and capable of assisting in those examinations.

Mr. SALOMONS.—Last week we had an examination. Of those who were to examine at the Oral Examination there were only two who could attend. You say that under your By-laws you have power to arrange this; but you have not done it. I undertook the work, and examined, by having at my right hand the gentleman who conducts our classes, who is well up in these things, and dealt with many questions which I could not. It is not all rose-colour, I assure you.

Mr. CATES.—The By-law I quoted has a very wide scope, and shows that the Council has the power to bring in to the assistance of the examiners any one able to aid and assist—such a person, in fact, as the gentleman who has given Mr. Salomons such assistance, and spoken through his mouth at this last examination, might, if the subject had been brought before the Council, have been duly appointed to assist.

Mr. GIBBS.—If it is not raising too great a question, and if I am in order, having seconded the motion, it appears to me to be a great question whether these examinations should not be all conducted in London. I have felt so, and other members of my Society have felt so. It is rather awkward to be examining people you know very well, who are pupils of practitioners in the same town as yourselves. There is also the difficulty which Mr. Salomons has pointed out, of getting sufficient examiners to undertake the work. It is a very little matter to go to London nowadays; and I think myself it would be far better for the whole of the examinations to be conducted in London. They come with far more authority and are far better done. I was told of one gentleman who passed an examination in London; and he said he should much prefer, if he had the chance, to be examined in London again. He said: "I felt "that the gentlemen who were examining me "were specialists; and, in the presence of three "or four, if one did not catch my meaning another "did, and I felt that I got a very much better and "fairer examination than I should if examined by "a Sheffield gentleman."

The CHAIRMAN.—I think we are getting rather wide of the mark. The resolution before us does not really refer to the question of education, but refers to the boundaries of these provinces. I must ask you really to hold yourselves to that question, rather than to the question of education, which has already been before this Conference.

Mr. CULSHAW.—Why I raised the question was that in Liverpool, with a limited number of Fellows, we must go somewhere else if we cannot get them in Liverpool.

The CHAIRMAN.—I agree with the question, but you have had a full reply from Mr. Cates which I think meets that difficulty at once. Whether the power is brought into requisition or not is no question for us to discuss. It is in the province of the Royal Institute to deal with that question, and I think we must really keep ourselves to the question in hand.

The motion was then put to the vote, and declared carried *nem. con.*

Mr. EMERSON.—Before the present proceedings close it is my pleasurable task to ask you to join me in a vote of thanks to our Chairman. The very admirable way in which he has conducted this business merits our heartiest thanks. Also, through him, I hope you will join me in thanking the Liverpool Society for having brought forward this very important question, being the first among the Allied Societies to see the real and great importance of this subject and the value it will be to the architectural profession, and to architecture in the future, if, by some such comprehensive organisation as this, we can elevate and improve the means of instruction of the rising body of architects. Also, I think our thanks are due to the Liverpool Society, through their Chairman, for the very pleasant and hospitable manner in which they have welcomed the delegates last night and to-day.

The CHAIRMAN.—I thank you all, Gentlemen, very sincerely for the kind way in which you have received what has fallen from Mr. Emerson, whom I thank for the kind things said about me. It is my pleasing duty, on behalf of the Liverpool Society, to thank every delegate for his presence here to-day. We felt that we were taking a very important step, and we are now sure that we have your active co-operation. We are obliged to you for assisting us to deliberate upon this very important matter. The representatives of the Royal Institute have assisted us very substantially in holding this Conference; they have given us their advice, and the benefit of their large and wide experience in the working of the Institute; and I am sure that every one of us present regards with the deepest interest, and with very great pleasure, their presence with us to-day.

The formal proceedings then closed.

No. 9, Conduit Street, Hanover Square, London, W.

HOW TO USE VITRUVIUS. By G. Baldwin Brown, M.A. [*H.A.*], Professor of Fine Arts at the University of Edinburgh.

A Paper read before the General Meeting of the Institute, Monday, 15th May 1893.

Mr. J. Macvicar Anderson, *President*, in the Chair.

Mr. President and Gentlemen,—

IT is part of the educational policy of the Royal Institute of British Architects to encourage the historical study of architecture among the younger members of the profession. The scheme of Progressive Examinations provides that the aspirant to the honour of Associateship shall become as well acquainted with the normal forms of his art in the past, as with its modern practice; he is taught to value tradition while he is being prepared to adapt his art to the actual conditions of the present, and is encouraged to view in a catholic spirit, as part of one great unity, the manifold phases through which architecture has passed in ancient, mediæval, and modern times.

Since this is the case, it will not be necessary to apologise for the introduction to-night of a theme that has no claim to that "actuality" which some might deem obligatory in a Paper addressed to a professional audience. The subject of the present Paper, it may be frankly confessed, has little relation to any pressing problems of the hour in the architectural profession. The most profound acquaintance with Vitruvius will not help a modern designer to evolve the perfect form for a modern cathedral; or, in street architecture, to pile a massive and dignified frontage upon a ground storey which the occupying shopkeeper insists on having entirely of glass. The study of Vitruvius belongs avowedly to the literary rather than the practical side of architecture, but it is not, I venture to think, for that reason a subject unsuitable for the present occasion. No one, who looks over the recently issued index to the Transactions of the Institute, can fail to be struck with the amount of literary and archæological work enshrined in our published volumes. It has been an honourable tradition in the architectural profession that its members have been prepared to sacrifice time and labour in the elucidation of the history of their art. The most distinguished explorers and writers have proceeded out of the ranks of practising architects, and were the supply of such ever to fail, it is not too much to say that the whole tone of the profession would suffer. A layman who ventures into this field must do so under obvious disadvantages, through the want of practical knowledge in matters of technique, which has been at the command of those professionally trained. The present Paper, accordingly, makes no pretence to deal with the obscure technical problems that meet the reader of Vitruvius. As its title indicates, it is meant rather to serve as a guide to those who may not be far advanced in Vitruvian study, and who may have asked themselves, What, after all, is the value of this somewhat obscure and un-

inviting treatise? It is not "Vitruvius," but "How to use Vitruvius" that I have ventured to take as the subject of the following remarks.

Vitruvius Pollio—for the prænomen "Marcus" rests on no ancient authority—was an architect and a military engineer in the time of Augustus Cæsar, and wrote a work in ten books on architecture and engineering and the construction of sundials. In the course of this work the author gives us certain details about himself and his professional career, and about the sources from which he derived the matter of his book, which help us to form a judgment upon its authority and value. The importance of the treatise for the modern student appears at once from the fact that Vitruvius is the only ancient artist whose utterances on matters concerning his own profession have come down to us. The *De Architecturâ libri decem* are, practically speaking, the only survivals of a fairly extensive technical literature on the arts of form once possessed by the Greeks and Romans. Treatises on literature by men of letters we possess in fair abundance, but, with the exception of Vitruvius, we can now hear no ancient architect, sculptor, or painter discoursing about his own aims or his own achievements.

That the work of Vitruvius occupies this unique position is, of course, more or less an accident. It would be rash to conclude all at once from its survival that it was a better book than its fellows which have perished, and we must find other grounds than the mere fact of its present existence for fixing the place of the work in that technical literature just referred to. Vitruvius has, however, not only survived, but has enjoyed a quite extraordinary reputation, as well in ancient and mediæval as in more modern times.

An acute scholar of the early part of this century, Councillor Schultz, gave it as his opinion that what we call Vitruvius is, in reality, nothing but a figment of the tenth century made up by a learned man of that epoch out of various Greek, Latin, and Arabic fragments that have since perished. This view, which was never seriously supported, is sufficiently disproved by the number and antiquity of the Manuscripts of Vitruvius, some of which can be traced back to the ninth century, and upon which a critical discussion was laid before the Royal Institute in 1836 by the late Professor Donaldson. There can be no reasonable doubt that the work which we call Vitruvius is substantially the same as that which was handled by the contemporaries of the early Cæsars. The estimation in which these held the treatise is shown by the fact that the elder Pliny, in his *Natural History*, published about 77 A.D., pays our author the compliment of quoting, without acknowledgment, whole paragraphs from the *De Architecturâ*; while Frontinus, in his tract on the Roman aqueducts, written about the same period, mentions him by name as "Vitruvius the Architect." Evidence which came to light a few years ago enables us to date back to classical times the well-known epitome of Vitruvius, annexed to most editions of the *De Architecturâ*. A folio of parchment has come accidentally to light in the Library at Vienna containing the beginning of this epitome, but with this heading, which occurs in no other manuscript copy, M. CETIFAVENTINI ARTIS ARCHITECTONICÆ PRIVATIS USIBUS ADBREVIATUS LIBER—"the book on Architecture summarised for his private use by Marcus Cetius "Faventinus." The name Faventinus, which can now be assigned to the author of the epitome, has a very classical sound, and would warrant us in dating back the tract to Roman times, and using it as an argument for the high reputation of Vitruvius among his own countrymen. A little later, in the fifth century, there is a significant passage in a letter of Sidonius Apollinaris, Bishop of Clermont, in which the writer enumerates in a rhetorical strain the names of men famous of old in various spheres of activity. There are Thales, Euclid, and others for science; for philosophy, Socrates, Plato, Aristotle; Demosthenes and Cicero for eloquence. In describing the attributes of the various masters he speaks of Orpheus with his plectrum, Æsculapius with his staff of healing, Archimedes with his measuring-rod; and finally makes mention of the

"plumb-line of Vitruvius."* This shows that Vitruvius in the fifth century was popularly supposed to stand for architecture, and may be taken as evidence of the dearth or obscurity at that time of other writers in the same field. This merits a word of comment. Vitruvius himself, as is well known, admits that he drew his materials largely from the works of previous Greek writers, and laments at the same time that architects among his own countrymen had written so little on their art. Before his time, he tells us, only Fufitius, Varro, and Publius Septimius had published anything on the subject. † Now we must remember that Vitruvius, whatever was the exact date at which he wrote, lived at the very beginning of the great Imperial period of Roman architecture. He had either not had the opportunity of seeing, or did not feel bound to mention, the characteristic structures of the Imperial style which were beginning to arise in his lifetime. These structures were multiplied in extraordinary profusion during the succeeding three centuries, and involved the dealing with numerous technical problems of the utmost difficulty and interest. Did no later Vitruvius, we may ask, arise to reduce this extensive practice to rules, and compose a new compendium of architecture to lay at the feet of a Titus, a Hadrian, a Diocletian? Why was it necessary for a literary expert of the fifth century like Sidonius to go back to the reign of Augustus for a representative of the science of architecture? Whatever may be the explanation, the fact remains that we have no fragment or record of any work of the kind written by a Roman architect under any of the later Emperors, and it may count in favour of Vitruvius that no succeeding writer seems to have had the ambition or the power to improve on, or supersede, his work.

One cannot say what would have been the fate of that work in the disorder and barbarism of the early middle age, had it not been for a special piece of good fortune. Vitruvius was in all probability preserved to us through the interest taken at the court of Charles the Great in the remains of antique culture, an interest of which the artistic outcome were the noble bronze doors and lattices of the Minster at Aachen. The oldest manuscript of the work which has survived, that in the Harleian Collection in the British Museum, No. 2767, dates from the ninth century, and belonged formerly to an Abbot of the monastery, famous in art history, at Hildesheim. In the Carolingian dominions we know that copies of Vitruvius were possessed by the monks of Fulda and of other monasteries, while there is extant a letter, probably from the hand of the celebrated Eginhard, minister and artistic adviser of Charles the Great, in which the writer asks his correspondent to ascertain for him the meaning of some obscure phrases in "the books of Vitruvius." ‡ The learned editor of the text of Vitruvius, Valentinus Rose, considers that there is evidence of the existence of a manuscript of the *De Architecturâ* written in Anglo-Saxon characters of about the eighth century; and this fact, which may be explained by the intercourse between Charles and his ministers and some of our Saxon sovereigns, is worth the attention of those who are interested in our pre-Norman stone architecture.

Preserved and studied under these conditions during the Middle Ages, the manuscripts of Vitruvius were sought out and perused with avidity by the scholars of the early Italian Renaissance, and it was for their benefit, as he tells us, that Sulpitius, the first editor of a printed Vitruvius, issued the *editio princeps* of the *De Architecturâ* at Rome about the year 1486. This first edition was soon followed by others, the most notable of which were those edited by the learned and ingenious Fra Giocondo of Verona, who was the first to add illustrations to the letterpress; and, though arbitrary in his conjectures, made, Dr. Rose tells us, the best set of conjectures for a restoration of the text that have ever been offered.

It is not my purpose to review the successive printed editions of Vitruvius, of

* *Epistol.* iv. 3.

† *Vitruvius*, edited by Rose and Müller-Strübing, Leipzig, 1867, p. 160.

‡ See the introduction to the Edition of Rose.

which a grand collection exists in the Library of the Institute, and this is the less needful as communications on the subject from Professor Aitchison and Mr. Paul Waterhouse appeared not long ago in the *Journal*.* Nor is there any need to repeat the often-told tale of the extraordinary influence exercised by the work of Vitruvius over the men of the late Renaissance and of the seventeenth and eighteenth centuries. It is not too much to say that in many quarters Vitruvius came to be looked upon with the same sort of reverence with which Protestant Churchmen of the same period regarded the Bible. Writers who criticised his style or his statements, still, like Leon Battista Alberti, relied on him to form the groundwork of their own disquisitions, while his influence runs through all the Italian architectural writers of the later Renaissance; is potent in the France of Louis XIV., when Perrault published his great French edition; and appears on almost every page of such books of our own country as Sir William Chambers's *Civil Architecture*. Even as late as 1836 Marini, the editor of the most sumptuous edition of Vitruvius that has ever appeared, could speak of the *De Architecturâ* as that "noble work pored over in constant perusal by so many distinguished "architects and scholars of renown, and by all the famous votaries of refined litera- "ture, elucidated by numberless commentaries, extolled by ever-sounding praises, "which still circulates in honour throughout the world of letters."†

Vitruvius, as we have seen, comes down to us from antiquity with considerably more claim to our respect than those which are due merely to the fact that his work is unique. The sort of reverence with which he has been regarded for the previous three centuries is, however, a thing of the past. The advance of scientific methods of criticism in modern times has dethroned the principle of authority, and all old-established reputations have now to pass through the ordeal of a searching, and sometimes hostile, examination. The higher the reputation, the more absolute the traditional authority, the greater is the zest with which the shallower sort of critic will set himself to the task of proving the one to be baseless, the other nugatory. There is some danger, therefore, lest in the present day the old superstitious regard for Vitruvius should be changed too suddenly into depreciation. It is possible to go into extremes as well on the one side as on the other, and a word of caution may be necessary for those who would be inclined to fling their Vitruvius aside as altogether antiquated.

It is unfortunate that the modern critical era, though it has done so much for us, has not yet produced a full and satisfactory edition of Vitruvius. None of the standard editions in modern European languages fulfils the requirements of the day. We have now, it is true, the advantage of a text, critically sifted and restored, which was published by Rose, after careful collation of manuscripts, in 1867; while the companion volume, the *Index to Vitruvius* by Nohl, is an indispensable aid to the Vitruvian student. Of editions with commentary or illustrations none has, however, appeared in recent days. One of the best is still that of the German Schneider, and Schneider's three volumes saw the light in 1807–8. The elaborate commentary is written rather from the point of view of the philologist than the architect, and there are no illustrations. It is most valuable in its elucidation of Vitruvian language by a comparative review of extant Greek writings on mechanics and other subjects from which Vitruvius is seen to have borrowed. The four handsome folios of the Italian Marini, recently presented to the Institute Library through the generosity of Mr. Arthur Cates, were published at Rome in 1836. The most recent edition of any pretension in France, the quartos of MM. Tardieu and Coussin, with one volume of plates, was published in 1859. In our own country, passing over the useful English translation by Gwilt, we have to go back to the early years of this century to find any important critical publication on Vitruvius, and we then meet with the *Civil Architecture of Vitruvius* elucidated by Wilkins, which was issued in 1812. Though only dealing with

* *The R.I.B.A. Journal*, 1890, pp. 398, 411.

† *Vitruvius*, Marini, Rome, 1836, I. xxii.

a portion of the Vitruvian treatise, the work of Wilkins is the best that has ever been done upon the subject, and this for a most significant reason. Wilkins is the only one of the Vitruvian commentators who was himself an explorer, and who took pains to confront the statements and measurements of his author with the actual remains of ancient buildings. In so doing he pointed out the only way that the Vitruvian commentator can pursue with any real hope of success. The philological scholar has done his best during three centuries to make light out of Vitruvian obscurity, and to smooth the rough places of one of the least elegant of literary scribes; it is now the turn of the archæologist, who, with his spade and his measuring line, is seeking to recover the actual facts of the art of the past, and who will bring these to bear with increasing effect upon Vitruvian problems. The great development in our own times of archæological research makes it possible for us to look forward to a future edition of Vitruvius which will afford the opportunity for bringing together in a convenient form the chief ascertainable facts about classical building and decoration. Our own country took the lead in the work of exploration a century ago, and one of the chief landmarks in its progress will always be the great book of Mr. Penrose on the *Principles of Athenian Architecture*. Of late years other nations have perhaps done more than we, though we may still fairly claim to be abreast of our rivals in archæological research. It would be a legitimate source of national pride were it to fall to the lot of our countrymen to bring the results of the century's labours to bear upon the old and honourable subject with which so many distinguished names are already connected.

The student of Vitruvius, who approaches his author from the historical and artistic standpoints, soon finds himself, for practical purposes, breaking up the treatise into certain main divisions, the respective contents of which vary greatly in value. He will put on one side without reluctance most of the last three books about hydraulics, about dials and water-clocks, and about military engines, and eliminate from the other books various incidental discussions, such as those about the winds, and about Greek harmonics. The bulk of the treatise will then be found to contain matter of archæological and literary interest that may be roughly divided under the four following heads. First of all, there are personal references and reflections of a general kind that afford information about the author's life and studies and the times in which he flourished. Next, there are technical discussions about the nature and use of various materials employed in construction and decoration. Thirdly, there are descriptions, more or less general, on the subject of the laying-out of cities and the placing and arrangement of public and private edifices. And lastly, there are detailed directions, with measurements, for the setting out of the Orders, and the planning and construction of the more important buildings. These divisions are roughly made for the purpose of convenience, but they enable us at once to make an important distinction between the relative values of the different parts of the treatise. That portion which has been the object of the most attention and reverence is the last—the detailed directions for the construction of the Orders and the like—and this is just the part which, as we shall see, must be received by the modern student with the greatest caution and reserve. The general descriptions are, on the whole, more trustworthy, while the technical discussions, especially in the section on Decoration, have an "actuality" lacking in other parts of the book, and are often of the highest interest and value. For the interpretation of all the matter of the treatise the personal references scattered up and down it must be taken into account, and a word or two on these may here be introduced.

Vitruvius, who may have been born about B.C. 90, was blessed with parents able and willing to give him what he considered a good education,* including a knowledge of the Greek language † and the Hellenic poets ‡ and philosophers.§ He further pursued

* Ed. Rose, p. 132. † *l.c.*, p. 110. ‡ *l.c.*, p. 223. § *l.c.*, pp. 158, 204, 232, &c.

on his own account special studies in philology and mechanics and in scientific literature,* from which he tells us repeatedly he drew materials for his work.† More than once he refers to Greek writers as his masters (*preceptores*),‡ and he gives in the Preface to Book VII. a considerable list of authorities upon the two subjects of Architecture and Military Engines. His studies in the latter subject brought him employment. He had been known to Julius Cæsar, and through the good offices apparently of the sister of Augustus he was made by that ruler joint-superintendent of the balistæ and scorpions and the rest of the State artillery.§ His architectural studies brought him at any rate one big commission, the Basilica at Fano ‖; but his practice was evidently small, though fully sufficient to give him a working knowledge of materials and processes. With his good introductions and his undoubted learning, he might have been expected, in an age so favourable to great undertakings, to have made his way, and that he did not do so is a proof that he was not a man of shining parts. His scholarly education did not even avail to make him write a decent Latin style, while he had never learnt logic enough to avoid cross-divisions; indeed, he has to confess at the opening of his work his own literary incompetence.¶ His scientific reading made him a theorist, and he seems to have had the same bent for curious mathematical and mechanical speculations which in after days characterised Lionardo da Vinci. Wilkins says of him that he had "a mind replete with notions in a high "degree fanciful and visionary, and influenced by a strong bias to metaphysical dis- "tinction and refinement."** This foible may have stood in the way of his practical work, as did a similar eccentricity in the case of the far greater Lionardo; and accordingly, whatever was the cause of his failure, we find the author of the *De Architecturâ* a querulous, disappointed man, conscious of solid attainments, but thrust into the background by the brighter and more flexible spirits of the day. His view of life we learn from his introductory addresses to his patron Augustus; and his remarks on his contemporaries sound to us quite familiar and up to date.

The times, he feels, are out of joint, and there is no available test to distinguish true worth from hollow show. Oh, for a window in every man's breast to make plain those stores of skill and knowledge which Vitruvius has collected through a lifetime of work; and to expose the emptiness of yon busy practitioners who have elbowed him out of the course! These buy their way with money, they make interest through their friends, they have a winning way with them, they are smooth of tongue.†† He is himself, unfortunately, he must confess, short and old and ugly,‡‡ and of modest means; but it matters not, for he scorns to use the arts of those who go about to canvass for clients.§§ Some of these are not only ignorant of architectural science, but of the simplest building processes,‖‖ yet they boldly go a-raiding in their ignorance, tempt their clients with small estimates, and then send them in a ruinous bill.¶¶ There is also the heaven-born artist-architect who learns his business by the light of nature. No wonder the long-suffering paterfamilias becomes in desperation his own architect, preferring to waste his money at his own sweet will rather than at another's.*** Meanwhile the men of really profound knowledge in their art are browbeaten out of the field.††† But let Cæsar deign to peruse this commentary—not, like so many previous books, an ill-digested farrago,‡‡‡ but complete, well-arranged, concise; such a treatise, in fact, as may furnish to him a guide and standard in all his great architectural undertakings.§§§ On this book will Vitruvius rest his fame; obscure as he may be in his lifetime, posterity shall honour him as its author! ‖‖‖‖

This last aspiration of our writer has been amply fulfilled. Honoured he has

* Ed. Rose, p. 132.
† *l.c.*, p. 160, etc.
‡ *l.c.*, pp. 91, 275.
§ *l.c.*, p. 2.
‖ *l.c.*, p. 106.
¶ *l.c.*, p. 11.
** *The Civil Architecture of Vitruvius*, Lond. 1812, p. xvi.
†† Ed. Rose, p. iii. Preface.
‡‡ *l.c.*, p. 32.
§§ *l.c.*, p. 133.
‖‖ *l.c.*
¶¶ *l.c.*, p. 242.
*** *l.c.*, p. 133.
††† *l.c.*, p. 242.
‡‡‡ *l.c.*, p. iv., *ad init.*
§§§ *l.c.*, p. 2.
‖‖‖‖ *l.c.*, p. 133.

been, even beyond his deserts, by posterity, but the immediate effect of his book on Augustus and his age was *nil*. As we have seen, the *De Architecturâ* is quite out of touch with the characteristic development of the building art in Imperial Rome, and this fact leads us naturally to inquire into the date of the treatise. It is vain to discuss this oft-debated subject with the care sometimes lavished on it, for we cannot tell how far the work was actually written as a whole near the time of its publication, or to what extent it had been slowly compiled during a great part of the author's previous lifetime. There are certain definite marks of date scattered up and down the pages. The mention of the "temple of Augustus" at Fano* must have been written after the assumption of that title by Octavianus in B.C. 27, while the references to the temple of Quirinus† would seem to bring us down to B.C. 16. The preface to the first book is addressed to Augustus at a time when his wars and political labours in reconstruction were over, and he was devoting himself to the works of peace. He had already built much, and was still engaged in building. Any date between about 25 and 15 B.C. would suit the situation well. Had Vitruvius, however, really *composed* his work at that epoch, it is difficult to understand why there is no mention of the special fashions in architecture which the Augustan age was inaugurating. Augustus found a Rome of brick and left it a Rome of marble,‡ but Vitruvius makes no mention of the practice of veneering a brick and concrete structure with marble, which became so characteristic of Imperial Rome. To him this use of marble is still an outlandish fashion, only known in Italy, as imitated in painting by the mural decorator.§ Agrippa had built at Rome the first of the great Thermæ, opened in B.C. 21, but to Vitruvius no other kind of bathing establishment seems to have been known but the modest "*balneæ*," of which we can now find an example in the older baths at Pompeii, of a date about B.C. 70. The characteristic features of the Thermæ, the walks, the racing and exercise grounds, the alcoves, the porticoes, are indeed described in the *De Architecturâ*, but in connection with the Greek Palæstra, an institution which the author expressly says was not in fashion in Italy.‖ The Imperial Thermæ were a combination of the *balneæ*, or baths proper, with the open-air attractions of the Greek Palæstra. Of this combination Vitruvius seems to know nothing. Further, as Professor Middleton has fully shown, Roman Imperial architecture depended essentially on the use of concrete, made with the volcanic earth, or "pozzolana" of the Roman Campagna. Vitruvius is acquainted with the excellent qualities of this material, but only knows it as found near Cumæ and Baiæ, and around Mount Vesuvius.¶ The inference is that the pozzolana deposits near Rome, at the time of his writing, had not yet been tapped.

We should naturally conclude from this that Vitruvius had collected the materials for his work before the new fashions had made themselves apparent, though he did not actually finish it till a later period of the administration of Augustus. The words of his opening paragraph seem to bear this out, for he writes as if he had his treatise ready some time before its publication, but withheld it till the stormy period of his patron's life was over. Those parts of the work which were derived, as he himself admits, from older writers, may, of course, have been in his note-books ever since he read up his Greek authorities in his early manhood.

So much, then, for the personal references in Vitruvius as tending to the elucidation of the treatise in general. We learn from what has been said that the technical discussions, and the general descriptions of the laying-out of cities and of buildings, must be held to apply to the practice of the later period of the Republic rather than to that of the early Empire. To these technical accounts of materials and processes I would venture to draw special attention. They are not only interesting from the point of view of the archæology of art, but also from that of modern craftsmanship. A revived attention to the technicalities of artistic processes is one of the features of the

* Ed. Rose, p. 107. † *l.c.*, pp. 70, 179. ‡ *Suet.* Aug. 28. § Ed. Rose, p. 172.
‖ *l.c.*, p. 127. ¶ *l.c.*, pp. 42, 129.

day, and the Meetings arranged by the Art Standing Committee for dealing with these subjects are among the most popular of those held in this room. Whatever the Romans could or could not do in art, their craftsmanship is unrivalled, and their knowledge and tact in the matter of materials and processes are apparent to this day in every corner of Europe whither their arms were carried. Vitruvius had no knowledge of the special techniques developed in the Imperial period, but was evidently quite up in all the traditional methods of dealing with crude and burnt brick, with building-stones, with mortar and concrete, with timber and wattle work. These methods were some of them of universal employment in the ancient world; some were more especially Roman. All have for us a certain actuality of interest. I was walking the other day through a West-country village, and I noticed on one side of the road a cottage built and finished essentially in the same way as the Palaces of Nineveh, and on the other a wall that at once reminded me of a passage in Vitruvius. The cottage was of course made of mud, or "cob," which, in the more developed form of the crude or sun-dried brick, was the old building material in constant use among the most ancient peoples. Then, like Sargon's Palace at Khorsabad, this Somerset cottage showed an outer coat of lime plaster for the protection of the mud walls; and finally, still in the Assyrian fashion, a painted dado in black to keep the foot of the wall neat and clean. Across the road there was a mud wall, on the top of which, in curious accordance with a Vitruvian receipt,* were some courses of burnt tiles to throw off the wet from the softer material below. The architect of to-day may never have occasion to build with "cob," but the continuity of a process of immemorial antiquity cannot but interest the modern craftsman.

These technical passages in Vitruvius, it has been noticed, are written in simpler language and a more flowing style than the more ambitious parts of the treatise. There is no need to enlarge upon them here, as the recent work of Professor Middleton on *Ancient Rome* contains in its earlier chapters a very complete commentary on this part of the *De Architecturâ*. A word on one of the most interesting of the technical discussions will suffice. I select that relating to plaster-work as applied to the decoration of apartments, in the seventh book. The beautiful Roman stucco reliefs which came to light not long ago in the Roman Villa in the Farnesina gardens have excited fresh interest in this phase of ancient art, while recent Papers and discussions at the Royal Institute have done much for the revival of artistic plaster-work in the present day. Now, the plaster-work of which Vitruvius writes is probably the very best that the world has ever seen. It was a Greek art, and he describes it as carried out in the Greek spirit, and with an astonishing care in the preparation and application of the materials. Chapters II. to VI. of this seventh book take us through all the processes of the finest plaster-work, from the wooden framework of the coved ceiling to the final colour-decoration in fresco of the finished surface. The ribs of cypress wood for the framework are shaped to the desired form of the roof, fastened and bound round with bundles of bruised Grecian reeds tied on with esparto grass. This framework is then rough-cast, and finished with successive coats presently to be described. Below the vault thus formed are drawn the cornices, plain or modelled, which are to be kept as light and delicate as possible. The walls below then receive their first rough coating of stucco, having been previously constructed in such a way as to exclude all chance of the work suffering from damp. For proper plastering there are required, over the rough-cast, other three coats of mortar, composed of sand and of lime well slaked a long time beforehand, and the surfaces are to be brought up absolutely true by the straight-edge and square. Each successive coat is applied when the last has begun to dry. Then follow no fewer than three finishing coats, made up this time of lime and crushed marble, the first mixture with the marble in coarse

* Ed. Rose, p. 53.

grains, the second in finer, the third in powder. So careful were the Greeks in the preparation of these materials that they would have ten men standing round the mortar-trough and steadily macerating the compound with wooden rammers. After the final coat is carefully laid, there follows the polishing process, carried on till the surface of gleaming white would actually reflect the beholder's face as in a mirror. So exquisite was this work in the hands of the Greeks that Vitruvius describes how the connoisseurs of his time would actually cut out panels of stucco from old walls and frame them into the plaster-work of their own rooms, just as if they were slabs of precious marble.* Here is something to tell the modern plasterer, whose stuff is so vile that it has to be papered over to keep it from crumbling off the wall by its own inherent worthlessness!

Vitruvius does not describe, as we should have desired, the process of modelling stucco reliefs for the adornment of these finely-plastered walls and roofs, but goes on at once to what forms another noteworthy section of his work—their decoration in colour by the fresco process. Vitruvius's description of this is a commentary of essential value on the later practice of the Italian mural painter of the early Renaissance. It puts us at once in possession of the right point of view from which to approach that most popular phase of art. We have been accustomed to regard these Italian wall-paintings too much as pictures, from the point of view of the conception and arrangement of figure compositions. We have looked upon the wall and the plaster-surface on which they are wrought as of no more importance than the canvas and priming of the modern painter in oils. Vitruvius carries us back to the wall and the plaster as the essential matters, to which the picture is added as a form of colour finish. The painter's work follows at once on the plasterer's, as if the same hand were to be engaged on both. As each successive coat of stucco had been laid on before the previous one was dry, so now the painter must be prepared with his pigments and brushes to apply his colour on the finely smoothed but still wet surface of the finished *intonaco*. Granted that all this is deftly done—that the plaster is duly macerated, the coats laid on at the right moments and fairly smoothed, the colours carefully applied the instant the final layer is brought up to its exquisite surface—then will the work abide for ages, the stucco will not blister or crack, nor the colours wash off or fade, and the whole will preserve its dainty brightness unroughened and undimmed.

It will be observed that Vitruvius has a far higher ideal in plaster-work than the Florentines of the Renaissance. The *intonaco* on which the Italian frescoist worked was not so finely prepared as this of classical times, and, to judge from existing remains at Pompeii, the classical frescoist was, as a craftsman, perhaps, the superior of his later rival. It was not till well on towards the sixteenth century that the Italian wall-decorator worked himself back to the practice which Vitruvius considers normal—that of carrying out the work to its finish on the wet plaster. Otto Donner's technical examination of Pompeian frescoes revealed extraordinary skill and lightness of hand on the part alike of the ancient plasterer and painter.† One point noticed in Vitruvius has been too much lost sight of in all subsequent mural painting. The exceptionally fine *intonaco* he prescribes was not intended only as a ground to support the decoration. It continued even when tinted to play its own part in the artistic effect, for Vitruvius evidently considers that its polished whiteness will gleam through the transparent veil of pigment—"*coloribus cum politionibus inductis nitidos expri-*" *ment splendores.*" This use of the white ground to keep up the brilliance of the final effect is in accordance with those sound artistic traditions which prevailed in the past so long as the arts and the crafts were one, and which we are now doing our best to recover. To carry as much as possible of the value of one process on into the next, is a maxim as sound from the point of view of economy as of art. The modern deco-

* Ed. Rose, p. 169.

† Published in Helbig's *Wandgemälde*, Leipzig, 1868.

rative painter to whom his plasterer is a servant rather than a fellow-worker, and who gets his lights by loading with white upon a heavy bed of pigment, may do worse than take a lesson at the hands of the classical frescoist.

In describing the actual painting, Vitruvius begins with the interesting archæological note that the earliest wall painters began by imitating panels of variegated marble.* He refers, as Dr. Mau has shown,† to the decorators in the Italian or Italo-Greek cities, when private luxury was coming in, in the last age of the Republic. The marble panels thus copied were in use at the time at Alexandria, and the practice here noted is a useful instance of the growing effect of Hellenistic fashions on the Italians of this period. The painters then went on, he tells us, to paint feigned architectural members upon the walls, and then to imitate subjects of various kinds from nature. It is well to know that researches among the actual remains of classical wall paintings bear out the account Vitruvius gives of this succession of styles, and illustrate also what he goes on to say about the newer and more fantastic fashions which were coming in in his own day. For this later style in wall decoration, which Dr. Mau calls "purely pictorial," and which is so abundantly represented at Pompeii, Vitruvius has the severest disapprobation. He finds fault with the reeds and the candelabra, and the impossible combinations with which the decorators of the time were toying, but his reasons are such as in these days of "The New Painting" sound not a little strange. Vitruvius was evidently Philistine enough to imagine that an art based avowedly on the representation of nature should keep in some logical relation to the facts of the world. "Pictures," he has actually the hardihood to say, "should not be approved of unless they are like the truth, however artistically they "are done." How could a respectable writer like Vitruvius so far deceive himself? One would have liked to take him to the New English Art Club, or the Grafton Gallery, and explain to him the recently issued artistic Gospel of the sympathetic smudge.

It is curious that this attack on new fashions in wall decoration is substantially the only notice that Vitruvius takes of the changes in taste and in practice which were going on in his time. How distinctly he was a man who stood still and looked rather back than forward, we feel when we turn from the discussions on Decoration to the general descriptions of towns and buildings. The descriptions, so far as we can test them, are fairly true, but they apply not to the Italy of the early Cæsars, or even to the sumptuously equipped Alexandria or Antioch of the later Hellenistic kings, but rather to the simpler arrangements of the provincial Greek and Italian cities of about B.C. 100. To Vitruvius the Forum is still the place for shows and gladiatorial contests.‡ The amphitheatres to which these were all banished after the time of Augustus he does, indeed, mention,§ but only once in passing. He knows of one stone theatre at Rome ‖—that of Pompeius—but the normal material is still to his mind evidently wood.¶ He describes military engines of the most distressing complexity, but it never occurs to him to tell us about the great Roman military roads which were then extending over the known world. The triumphal arch—a most characteristic Roman structure, of which he must have seen examples—he does not mention, nor is he much more up to date in the matter of aqueducts, in which he describes much simpler arrangements than the vast structures on their innumerable arches that were beginning in his time to cross the Roman Campagna. His description of the theatre opens up an interesting archæological question, which is now being hotly discussed—Had the old Greek theatre in the days of Æschylus and Sophocles any raised stage, or did the actors stand with the chorus on the orchestra level, only

* Ed. Rose, p. 172.

† *Geschichte der decorativen Wandmalerei in Pompeii.* Berlin, 1882.

‡ Ed. Rose, pp. 105, 243. § *l.c.*, p. 30. ‖ *l.c.*, p. 71.

¶ *l.c.*, p. 116. Two more stone theatres were built at Rome about B.C. 13.

raised above the singers by their high stilt-like boots? The opening up of this question by the recent researches of Dr. Dörpfeld is leading to a fresh examination of existing remains, and from this some results may accrue for Vitruvian criticism. From what we know of existing Greek theatres we can correct in many points the scheme of Vitruvius. His method of drawing out the ground plan is not borne out by the facts, and the slope he gives to the ranges of seats for the spectators is much less steep than it appears in the monuments. The famous sounding-vases of bronze and earthenware seem destined to remain as great a puzzle as ever.

On the other hand, there is much that can be made of use in the account Vitruvius gives, at the opening of Book V., of the Forum, and public buildings adjacent to it. In all Western cities the market-place is the centre of urban life, just as the city gate is in the East; and Vitruvius begins his account of secular architecture with the Forum. The Greek Forum he describes as rectangular, and surrounded by spacious double porticoes in two storeys, with galleries above for promenaders. Italian cities have these spaces less regularly laid out, because their Fora are used for games and gladiatorial shows. The Greek Forum that he has in view belongs to the later Hellenistic cities, laid out on a regular plan from the beginning, of which Asia Minor furnished so many examples. In an old city the market-place has not been made, but has grown. It is often the oldest and most interesting part—the meeting-place of scattered country folk, who coalesced later on into a town. Such Fora are of irregular, often triangular, shape, and are formed from the meeting of three or more roads which open out into them. The Forum of the new city, on the other hand, is deliberately selected and laid out; it is geometrical in shape, and no roads run through or into it. Fora of the kind Vitruvius describes are found in some of the Hellenistic cities, such as Aphrodisias in Asia Minor. They are like the Palais Royal in Paris, surrounded on all sides by porticoes, and only accessible to foot-passengers. Now, it was this Greek arrangement that was adopted at Rome for the structures known as the Imperial Fora, which were beginning to be laid out in the lifetime of Vitruvius. These Imperial Fora, of which the last and greatest was that of Trajan, were rectangular paved spaces, surrounded on all sides by walls or porticoes, exactly according to Hellenistic models; so that here again, as in the case of the Palæstra, we find that Vitruvius describes as Greek an institution that was already in his time beginning to become Roman. The few sentences in which Vitruvius describes the Basilica, which must always be localised near the Forum, are a good illustration of the unfortunate treatment that has sometimes been meted out to the author. He has been ignored when he was writing simply and from his own experience, and has been treated as almost infallible when he has really been retailing second-hand matter that he hardly himself understood. Vitruvius's account of the Basilica is not only natural and intelligible, but is substantially borne out by the actual remains of basilicas that have in our own day come to light. Yet Vitruvius has been in this matter practically ignored, and the older writers restored the Basilica according to its fancied similarity with the early Christian church, a building without upper galleries, and with an apsidal termination. Vitruvius shows us the Greco-Roman Basilica as an oblong covered space like a Forum, surrounded on all sides by galleries in two storeys, and devoted to the use of merchants and lawyers, who, in all weathers, had previously had to do their business in the open Forum. Though there is no apse, there will be a tribunal to mark the place for the judges, and this will keep the lawyers and the merchants from getting in each other's way. The general public, who may walk here as in the open Forum, are to be encouraged to use the upper galleries for their promenades, so as not to interfere with the business going on below.

From these readable descriptions of secular buildings and of technical processes and materials, we must pass now to those sections of the treatise which deal with the proportions of sacred edifices and with the details of the so-called Orders. This is the

portion of the *De Architecturâ* to which the greatest importance has generally been attached; it was the part, for example, selected for translation and annotation by Wilkins, and it is quoted on almost every page of all the older books on classical architecture. It is, however, the part which the new Vitruvian criticism is inclined to pass over as unworthy of serious attention, and in dealing with it in the present day one has to adopt an almost apologetic attitude. The difference of feeling is shown by the fact that in the older books we find, as a rule, that Vitruvian evidence is given the first place, while other evidence, such as that from actually existing remains, is used to support or modify the dogma of the master. In our own time we take first the evidence of the monuments, and refer to Vitruvius with caution, as of quite secondary weight. The reason is that since the beginning of this century we have established in our own minds a standard of classic architecture in the monuments of Athens. The Parthenon, the Propylæa, the Erechtheum—these, we think, will teach us all that we need to know of this phase of art. We find that these buildings are hardly mentioned by Vitruvius, and it soon becomes evident that his own standard was a different one. When we read his amazing statement that the older architects of Greece avoided the Doric Order in their sacred buildings,* we are inclined to throw our Vitruvius aside altogether. But it is not so much that Vitruvius blunders, though he is quite capable of this, as that his point of view is different from ours. How he arrived at that point of view we may now briefly inquire.

Vitruvius never tells us how far he had himself travelled, though he certainly writes of Athenian buildings as if he had seen them. It is difficult, however, to believe that he had visited the mainland of Greece, or even the Sicilian colonies, or the old Greek cities of Southern Italy. Had he done so, he must surely have been impressed with the predominance of the Doric style in the great temples, and would have given Doric the place it occupies in our own minds. As a fact, the standard style with him is the Ionic,† and this is significant of his whole attitude. Vitruvius makes it pretty plain to us, in the preface to his seventh book, that he depended largely on literary sources for his information about Greek temples. A most valuable sentence contains a list of Greek architects who had written commentaries on their own or other buildings,‡ and we learn from this the tantalising fact that Ictinus and Carpion had left a treatise, now unhappily lost, about the Parthenon. Out of these commentaries, he tells us, he extracted all that would suit his purpose, and put it together for his Roman readers. Now, from the evidence of other passages, it would appear that the two writers he valued most were Pytheos, the architect of the Mausoleum and the Temple of Athene at Priene; and Hermogenes, who built the Temple of Artemis at Magnesia, which, according to Strabo, surpassed all Asiatic monuments, save that at Ephesus, in size, richness, and beauty. Pytheos and Hermogenes were Ionian architects, who flourished the first a little before Alexander, the latter probably somewhat later. They both, according to Vitruvius, rejected the Doric Order on account of the difficulty with the corner triglyphs.§ Vitruvius shows his dependence on these authorities in several points: (1) he is led by their criticism of Doric to commit the error of saying that the older architects avoided this Order in their temple-building;‖ (2) he adopts the width of intercolumniation, which he calls "eustyle," or "perfect," from the proportions established by Hermogenes, whom he regards as the fountain from which after-comers were to derive their building-lore;¶ (3) the type of Ionic capital that he selects as normal is Asiatic, and differs markedly from the Attic-Ionic caps of the Propylæa and Erechtheum, seeming to be taken from the great temple of Apollo Didymæus at Miletus, but resembling pretty closely also the capital of the temple by Pytheos at Priene;** (4) the numerical relation of

* Ed. Rose, p. 91. † *l.c.*, p. 83. ‡ *l.c.*, p. 159. ** Puchstein, *das Ionische Capitell*, Berlin, 1887, 37 *ff.*
§ *l.c.*, p. 90. ‖ *l.c.*, p. 91. ¶ *l.c.*, p. 73.

the columns on front and flanks of a peripteral temple Vitruvius gives as 6 to 11. As a fact, this is just the rarest of all proportions, occurring in Doric buildings only in the insignificant Metroon, at Olympia. It does occur, however, in the Ionic temple at Priene, from which it must have been, all too hastily, adopted as the normal.

With these facts before us, we need not be puzzled that Vitruvius should choose the Ionic as the normal Order, though he admits that it was invented later than the Doric,* and that his measurements and proportions in general should agree so ill with those of the Doric temples, which are to us the standards of the art. The political changes of the time of Alexander the Great shifted the centre of gravity of the Greek world towards the East, and the cities of Asia Minor became of more immediate importance than the older states of the mainland. It is easy to understand that the architectural schools in these cities would prefer to establish their own Ionic Order and their own system of proportions, rather than to perpetuate the older fashions, and the maxims of Athenian art may well have remained for a time in abeyance. Vitruvius loyally followed his preceptors, and the accidental circumstances of the time when his authorities wrote have impressed themselves in this way on all subsequent architectural theory. We must, moreover, remember that the great temples are practically the only remains of Greek architecture now standing, whereas in classical times there were also to be seen innumerable colonnaded structures of a secular kind, which would naturally divide with the temples the attention of the architectural student. Some of the measurements of Vitruvius agree better with what we know of some of these than with the temples.

It follows from this that Vitruvius is practically useless in regard to the temples, especially those of the Doric Order, and his authority on such a question, for example, as hypæthral lighting is of no value. He introduces the subject of the temples by dividing them, in the strangest manner, into temples in antis, prostyle, amphiprostyle, peripteral, pseudodipteral, dipteral, and hypæthral. This is as illogical a division as to break up the human race into Europeans, Asiatics, Americans, and men over six feet in height, for the term "hypæthral" refers only to a mode of lighting, and has nothing directly to do with the placing of the external columns, which is in the other cases the principal of the division. Any of the larger temples might have been hypæthrally lighted. What seems to have been in Vitruvius's mind when he wrote was some vague information about two of the vaster Hellenic temples that had remained up to his time without a roof—the Temple of Apollo Didymæus at Miletus, and that of Olympian Zeus at Athens, about which Mr. Penrose has recently made so interesting a communication. He may have imagined that these roofless temples made a class by themselves, and may have had no intention of speaking about *hypæthral lighting*, in the form in which we find it, for example, in the Pantheon. There is nothing to tell us whether Vitruvius knew or did not know that interior colonnades were common in Doric temples of the class of the Parthenon, or whether he believed them to be lighted through the door or through an opening in the roof. His error about the number of the columns in the peripteros has already been mentioned, and he is no more happy, as far as Doric temples are concerned, in his formulæ for the placing of the shafts. Out of a dozen famous Doric examples brought together by Professor Durm,† not a single one agrees with any of the types of Vitruvius; neither the "crowded," the "close," the "open," nor the "perfect" system of placing occurs in these standard buildings. On the other hand, when we turn from the temples to secular porticoes, the formulæ of Vitruvius apply far more closely. To take one example, the portico of King Attalus at Athens by the Agora, two-storeyed, according to the Vitruvian precept, had the Doric shafts of the lower colonnade arranged according to the "eustyle" or "perfect" scheme; they were nearly of the proportion Vitruvius prescribes—a pro-

* Ed. Rose, p. 86. † *Baukunst der Griechen.* Darmstadt, 1881, p. 74.

portion much slenderer than was in use in the temples—and the frieze showed the two triglyphs and three metopes in each intercolumniation which Vitruvius seems to consider normal, while in the temples the single triglyph is the system universally followed. This seems to indicate that the descriptions of Vitruvius will be found of increasing use when we come to pay more attention to the secular forms of Grecian architecture than has hitherto been the case. The glory of the mighty temples has obscured for us the minor beauties of the porticoes and other secular structures; but these last, as we find them, for example, at Olympia, are claiming now their fair share of attention, and not a little that we now find incomprehensible in Vitruvius may receive from these its elucidation.

There are many other topics arising out of these sections of the *De Architecturâ* which would repay examination, but which must here be passed over. One of the most interesting of these would be the question so often discussed, but still so far from solution, of the optical refinements in the architecture of the ancients. That Vitruvius believed in these refinements is clear from many passages of his treatise; and that this is not a case merely of the fancies of a theorist is proved by certain fragments of Greek literature and epigraphy, which show that it was a recognised principle in Greece that certain corrections and allowances had to be made in adjusting the proportions of buildings to suit corresponding optical delusions which made things seem other than they were in reality. The importance that this subject has acquired in modern times, since the publication of Mr. Penrose's monumental work, is well known; but it is too large a one to enter upon in the absence of time for its due discussion. On this whole section about the Orders, we may say in passing away from it that the Vitruvian formulæ are, on the whole, incorrect as applied to the ancient monuments regarded by us as standards. In so far, moreover, as they are *formulæ*, and tend to give the impression that Greek architecture was rigidly controlled by the measuring-rod, they are apt to mislead. The monuments reveal to us that there was a life and a flexibility about Hellenic forms and proportions of which the dry regulations of Vitruvius afford little idea. Gentlemen, not long ago the *Journal* contained a short article on Vitruvius from an accomplished pen, and in it was said:—"The Gothic "revival thrust Vitruvius aside, and there have been architects among us (perhaps "some are still living) to whom his name was as 'the abomination of desolation.' "Nowadays, we are returning to classic manners and classic tastes. But what of "Vitruvius? Is he reinstated in favour? Is not his name still introduced with an "apologetic prelude and received with dignified smiles of self-satisfied superiority?"* "What of Vitruvius?" is the question which, in the foregoing Paper, I have ventured briefly to propound and discuss. The purpose of the Paper will have been amply served, if it induces any of the younger members of the Institute with a turn for historical study, to take up afresh, from the point of view of to-day, this much controverted writer. To do this need imply no preference for classical over mediæval architecture. The day is now past when Vitruvius could be made a battle-cry. The famous "conflict of "the styles" is fast becoming a piece of ancient history. We may have our preferences, but we do not carry them so far as to fight about them. In some ways it might be better if we did. There is a bracing power about the zeal of the fanatic; and this may be worth more to those who can feel it than the facile breadth that comes so dangerously near indifference. There has been a certain easy-going eclecticism in fashion among architects, which has made them ready to build in every style in turn. It is true that an openness of mind so complete and colourless no longer satisfies the conscience of the profession, but it is still the case that architecture is passing through a phase of experiment, and we coquet and flirt with styles without embracing any one of them with real ardour. We might do worse in some respects than go back to the

* Mr. Paul Waterhouse, in *The R.I.B.A. Journal*, Vol. VI. 1890, p. 398.

time, not so far distant, when devotion to the pointed arch became a religion, when its votaries would have gone to the stake sooner than bow down to that accursed thing an architrave, and when they would have had all the threescore editions of Vitruvius burned by the common executioner! In the present condition of affairs, which will endure no doubt till, from modern conditions of life, there is evolved a consistent modern style, let us, at any rate, use to the best advantage our congenital width of sympathy. There is an eclecticism that only dresses itself in the rags of the men of past ages; but there is a better eclecticism that has penetrated behind these outward forms to the spirit which has animated all the great achievements of the constructor's art. Such an eclectic will follow the Greek step by step through the coherent logic of the Dorian temple, and learn there all the beauty of severely regulated proportions, whose secret is precision of detail, and calculated refinements of curve, and balance of the straight and rounded lines. But he will none the less be ready at another time to join in fancy the imaginative flight of the creator of Rheims or Beauvais, to penetrate the charm of suggestion and mystery in mediæval art; to lose himself in the rich and wayward complexity of forms that appeal rather to feeling than intelligence. That architect has the best artistic equipment for dealing with modern problems who understands most fully the value of each of these different sets of qualities, and the conditions on which each depends.

It is true, as we have already seen, that Vitruvius has tended to promulgate a somewhat narrow view of Grecian architecture by giving the impression that it was more formal and rigid than was actually the case. What makes that architecture so perennially instructive to the student is the exhibition, side by side, of the most simple, even bald, severity of form, with the most delicate and wellnigh sense-eluding varieties and refinements in detail. As long as architecture is recognised as an art based essentially on composition in mass and line, so long will the Greeks, the greatest masters of form the world has ever seen, continue to be the preceptors of successive generations of constructive artists. No one who comes to close quarters with the work of the Greeks can avoid an encounter with Vitruvius; and, if the intercourse that results is to be of real value, the author must be neither exalted nor despised, but only understood.

But the enduring use of the historical study of architecture does not, after all, depend on the amount that may be gleaned therefrom for modern practice. In the history of architecture, rightly understood, there is no past. The old problems change their aspect, but under their local differences the essential similarity remains. There is still, as ever, the Task—the social, religious, national need, which the architect is called on to supply. There is still, as ever, the Material—it matters not whether clay, or timber, or stone, or iron—which has to be moulded into a form at once of use and of beauty. The task and the material may vary, just as the conception of beauty in the artist's mind may vary from age to age, but the scope of his work abides the same. To succeed, his genius must prevail in absolute mastery over both the task and the material, till stone and timber perform willingly the appointed function, and are transformed in the doing of it from dead matter to things of life and expression. To annul the merely material and make it live again in the artistic form has been in all ages the work of the constructive artist, and all who have laboured therein are part of one great company. In a passage, obscure indeed and awkwardly expressed, but worth the trouble of perusal,* Vitruvius indicates the main stages in the building up of the architect's conception. Nature meets him first, and her laws, understood and followed, must be made to serve the purpose of the human plan. Religion will present another set of conditions; and then will come in considerations of logic and consistency, the disregard of which will turn to confusion what should be stamped with the

* Ed. Rose, p. 12 *f.*

impress of intelligence. Guided thus by laws outside himself, but still working in artistic freedom, the architect will so mould his masses as to secure that balance in opposition, that play in symmetry, on which depends so largely the beauty of design; while, finally, the ordering of smaller details will carry out the same harmony of forms into every part of the structure.* In so working, the architect of to-day joins hands with Greek and Goth, with Roman and Norman and Florentine; and, though under other conditions and set to different tasks, he is seeking to realise in outward form that same artistic ideal which floated dimly before the confused but honest mind of Vitruvius Pollio.—G. Baldwin Brown.

PROCEEDINGS.

Monday, 15th May 1893.

Fourteenth General Meeting (Ordinary).

[Mr. Macvicar Anderson, *President*, in the Chair.]

The preliminary business of the Meeting, which included a reference, as given below, to the completion of *The Dictionary of Architecture*, also referred to elsewhere in this number of the *Journal* [p. 372], consisted of the nomination of 9 candidates for ballot as Fellows, 27 for election as Associates, one for election as Hon. Associate, and one as Hon. Corr. Member.

The Dictionary of Architecture.

The PRESIDENT.—Gentlemen, before I call on the Lecturer I wish with your indulgence to interpolate one or two words. During the past week a Meeting was convened in these rooms, which was presided over by one whom we regret to see seldom amongst us now, Professor Hayter Lewis, for the purpose of winding up a work of some magnitude, and of no less importance,—*The Dictionary of Architecture*. I think it would not be seemly if the occasion were to be allowed to pass without the Institute recording its acknowledgments to those gentlemen who have, by their energy and their indefatigable skill, brought about the completion of this *Dictionary*. I am afraid that only those who can lay claim to be among the oldest members of the Institute can have any vivid recollection of the period of its inauguration; but it is satisfactory to find that, remote as that period is, the work has now reached a satisfactory conclusion. There are one or two names which, of late years particularly, have been intimately associated with the completion of this work. Foremost stands that of our old friend Mr. Wyatt Papworth; and invaluable as have been his labours, they have been ably seconded by the indefatigable services of the gentleman who has acted as Honorary Secretary for a great number of years, Mr. Arthur Cates. I wish, therefore, if you will allow me, to move a most hearty and cordial vote of thanks to those gentlemen who have brought their arduous labours to so successful a conclusion. We are not a very large meeting to-night, but I think in such a matter as this we may be taken as representing the feelings of the whole profession.

The vote of thanks was passed by acclamation; and the President called upon Professor G. Baldwin Brown [*H.A.*] to read his Paper, which is printed in full on pp. 353–68 *ante*.

HOW TO USE VITRUVIUS.

Discussion of Professor Baldwin Brown's Paper.

The PRESIDENT. — Gentlemen, I have followed with very keen interest, and I am sure, judging from your attention, you have done the same, the very able Paper to which Professor Baldwin Brown has treated us; nor could it be otherwise, for, apart from the more technical sides of the subject, we could not fail to be interested in learning how those problems which we spend our lives in trying to solve were treated by a man who lived nearly two thousand years ago. It is interesting to learn from the personal references of Vitruvius which Professor Baldwin Brown has placed before us, that even in those remote days a man of solid parts, and erudition, and ability had to repine that such qualities were to a great extent unrecognised by an unappreciative public; while, on the other hand, men who were not possessed of those solid qualifications managed to push themselves into the positions of successful practitioners. I fear, from experiences which in these later days occasionally come under our observation, that such things are not restricted entirely to the age of Augustus. Professor Baldwin Brown has referred to his subject as being more of a literary than of a practical nature, and I now invite those gentlemen present whose literary attainments distinguish them to add to our instruction.

Professor KERR [*F.*].—Gentlemen, I am not in any way qualified to discuss this matter to so great an extent as some of the other gentlemen who are present, but I feel bound to move a vote of thanks to Professor Baldwin Brown for a discourse so elegant and so full of information. I should like to remind gentlemen who nowadays, perhaps, never hear of Vitruvius, that the position which he held, taking it from a point of view other than that which Professor Baldwin Brown has taken, seems to be this. His writing is identified almost exclusively with the commencement of the Christian era, and it is interesting to us all to know what was precisely the position of things at that time. The Emperor Augustus had magnified

* Ed. Rose, p. 12 *f*.

the Roman dominions to such an extent as to be able to seek repose in the refinements of art. That I think we can understand, and no more need be said about it. Now he is said to have imported Greek artists largely; but that is a phrase which may be easily misunderstood. The Romans always depended upon Greek artists, but at all events the work of the Romans had culminated before the time of Augustus, and was at the commencement of that course of decadence which eventually led to a typical style which is, perhaps, best manifested in the Coliseum. The Romans laid down their style with the Coliseum, we may say, and the Italians, 1,300 years afterwards, took that style up at the same point. Vitruvius seems to have been somewhat of a purist in theory, and to have desired to revert, to the best of his ability, more to the classical Greek than the ordinary architect. But, Gentlemen, we must look at things from a practical point of view. Vitruvius was put into a post by the Emperor to look after some engines of war with which he was familiar, and thus, as he says, was relieved from the danger of poverty. Thus he was emboldened to dedicate to the Emperor this book of which we have heard so much, which was a manuscript book. There is no doubt he was querulous. But I should like to look on him as if he were one of ourselves, and I should like you to appreciate him in that way, for then I think you would understand his views better. He passed away, and in the course of time Roman architecture passed away. The Roman authority was removed, as you know, in the middle of the fourth century to Constantinople, and that became the centre of learning. Not so much, perhaps, was done from Constantinople as we should expect; but when the Turks captured the city in 1453, they dispersed the learned men who had for a long time taken refuge there, and then it was that Vitruvius as a writer came to be known, and not till then. I cannot exactly see my way to believe that Alberti derived his knowledge from Vitruvius. I rather think he derived it from the monuments, and that the learned men of the day seized upon Vitruvius in a spirit of worship which has passed away from us now, but which was, I may say, in my young days, as supremely dominant as the worship of a Deity. There was a sort of feeling of confidence in being able to quote a writer of the Augustan age, however feeble he may have been. Then I think during the Middle Ages his manuscripts were simply locked up in the monasteries and in Constantinople, and were known to, and perhaps studied by, only a few men of taste. I do not think that the writings of Vitruvius had much influence in the sixteenth century. I think the Italians took up the question of architecture as the Romans laid it down at the Coliseum, in their own form, which has been pursued ever since, and that the architecture thus established is the architecture proper to the age in which we live.

Professor AITCHISON, A.R.A. [*F.*].—Mr. President and Gentlemen, I wish to second Professor Kerr's motion of thanks to the learned Professor who has just delivered to us this most fascinating account of his views on Vitruvius. He has divided his discourse into two parts, and I should be inclined to follow out the last part rather than the first; but that would hardly be fair in dealing with a Paper which has been written wholly upon the subject of Vitruvius. When there is not only acrimony, but the question of livelihood, in the choice of two styles, we must expect to have a good deal of vigour exhibited by the adherents of each; but we are, as Professor Baldwin Brown said, in the peculiar condition just now of undergoing a new system of instruction, nearly as great as that undergone by the barbarians who overran the Roman Empire, but in quite a different way. After the horrible blank that was left by the Renaissance, we have a century or two entirely unbridged, and all the students—for we can hardly expect the elder men, who are getting their livelihood, to expend their time over it—are striving to see what they can do, and how they can bridge over this great gap which has been left. It will not be bridged over in my time, but I certainly hope that by the constant assiduity and industry of the rising generations they will be able to do it, and to produce works to which all those of the past are as nothing. Having said so much, I will return to the subject of Vitruvius. Vitruvius, there is no doubt, was a most fascinating author, but a very crabbed writer indeed, who by no means expresses himself elegantly. Vitruvius tells us that he has been engaged in the practice of his profession, and has had no time to give to the elegances of literature; but, after all, the difficulty is to discover why he has been so popular. Of course, as one of the German philosophers has said, the greatest gifts that man can be given are sagacity, strength, and luck. Vitruvius, possibly, may have had luck; but there must have been some inherent merit in his work which has carried it down from so early a period to the time it was printed. It is not only the architect, but also the literary man, who has laid so much stress on the writings of Vitruvius. All good writers say that his description of an architect is the best description of the ideal literary man the world has yet seen. He took that very high view, which is not common in any epoch or in any profession. The great point which it appears to me he has taught us—and no doubt he got the idea from the Greeks—was the importance of taking a module for the scale of all buildings. That was the main idea that possessed the Greeks, and which had come down, partly from tradition, and partly from their writings, for he speaks of everything as being arranged by some given module by which all the parts were arranged, and there is no doubt, from the extreme care that these great geniuses of the Renaissance applied to buildings, that with all their faults they produced an architecture which is superior, in certain respects, to anything which had been produced before. I think, therefore, that all students and all practitioners may gain much by studying this. As we all know, one of the great points of architecture, as far as its beauty is concerned, is its rhythmical proportion, and these proportions are

to be got by having one fixed standard by which all the work is arranged. Vitruvius has given us a great many practical hints as to construction; but he lived in the raw brick period, or, at any rate, if he over-lived thattime, all his writings which were afterwards published deal with that time when little else was used but unbaked brick. You see, Gentlemen, he gives no description whatever, so far as I recollect, of that which formed the most striking feature of all Roman work—that is, a skin of triangular bricks filled in with rubble; whether the wall was to be plastered, covered with mosaic, or marble, that was the form in which baked bricks were used, with a course here and there of whole ones for bonders. His remarks with regard to plastering are extremely interesting, and, of course, he is invaluable to the archæologist; but, as far as we architects are concerned, I think archæology is merely an innocent amusement. Archæology has nothing whatever to do with architecture, and the more we exclude it from our minds the more likely we are to succeed in the path we are all aiming at, and I hope the path in which we are all proceeding. But, Gentlemen, on the other hand, all that humanity can do is from the past, with the factor of the present. If a man wants to be a great architect, he must needs study all the masterpieces of the ancient times. No poet, whatever his genius, would ever think of writing a great poem unlesss he had read the principal masterpieces. If he were unfortunate enough not to be a linguist, he would certainly read them in translations. Even the illiterate Burns was a devout reader of all the classics as well as Shakespeare, who himself, although not exactly illiterate, was not one who could compare himself with the great scholars of his day. Therefore, I want the younger men to understand that, if they aim at great things, they must study the great things that have been done. Whatever their genius may be, it cannot possibly be carried to perfection unless they bear in mind the lessons to be learnt from the great works of the past, which must be gone through, studied, appreciated, and absorbed, before they can expect to equal or surpass them. Gentlemen, it is getting late, or I could go on much longer, but I think all I will say further are a few words with regard to the painted decorations which moved the bile of Vitruvius. Where these decorations came from nobody apparently knows—possibly from Asia Minor—but that they took the most firm hold on the minds of the Romans is quite clear, because every Roman-painted wall that is exposed by excavation shows that this decoration was universal, and is what we call Arabesque. It had a fascination for the people of the Renaissance, not purely upon its own merit, but because it was found by the people of Rome just when they had shaken off ecclesiastical fetters. They had found that the Romans, as they supposed—but it was really the Greeks, whom the Romans had copied—were most perfect in sculpture; they knew that the Greek and Roman literature was vastly superior to their own in style, therefore they were quite ready to think, having Vitruvius and some of the Roman works, that they could equal anything that had been done by the Romans, who were the greatest masters of empire that the world had yet seen. Directly the Italians of the Renaissance saw a chamber or two of Nero's house, under the Baths of Titus, they were copied at the loggia at the Vatican by Raphael, and this form of decoration still goes on, and is the most common method of decoration even to the present day. Gentlemen, I should like to say a good deal upon the subject of plasterwork, but really there is no time to do so. It is, however, evident that the ornamental plastering was all done by hand with plaster in the soft state, and was worked by the skill of the plasterer. There are two points partly connected with Vitruvius which I must mention before I sit down. One is the well-earned tribute which has been paid by the lecturer to Wilkins, who appears to have been the discoverer of what is meant by the *scamilli impares*—that is, the ordinates by which these curves are got. After Wilkins's discovery, and the parts were cleared of rubbish, every one could see the curves, which ended in their being made absolutely certain by the researches of Mr. Penrose. The other thing I wish to mention is that all these optical refinements were known to the Greeks, as is shown not only by the Greek architects, but by the Greek writers. It is to be read in the diatribes of Plato, who frequently makes remarks upon these devices by which optical illusions were rectified, and, as we know, he was not a very wise man. Gentlemen, I think it will not be interesting to anybody to hear more about the merits or demerits of Vitruvius, as it is getting so late; therefore, again presenting my thanks to Professor Baldwin Brown for his most interesting Paper, and for his hope that an illustrated MS. of Vitruvius may still be found, I conclude my remarks.

Mr. H. H. STATHAM [*F.*].—Gentlemen, I should like to say a few words upon the vote of thanks which has been proposed to Mr. Baldwin Brown for his exceedingly logical and interesting Paper. In the first place, I should like to make a suggestion which I think was a little passed over by Professor Brown, although he did approach it, and that is that one reason why Vitruvius has always been held in honour is that he was an example of an architect who took a remarkably all-round comprehensive view of the art. His notions about the artistic side of architecture may seem to us to be somewhat pedantic, but nevertheless he evidently did regard it as a great art, and at the same time he paid all possible attention to questions of construction. And that is one reason why this Institute ought to hold him in honour; for Vitruvius was really the first upholder in literature of the view of architecture which we have been trying to uphold lately against a good deal of opposition. I hoped, therefore, that there would have been a larger Meeting than there is, not only as a compliment to Professor Brown, but also to pay a tribute to the memory of Vitruvius. With regard to Greek buildings, I have always been under the impression that Vitruvius had not

seen any Greek buildings himself; but at the same time we have to remember that he put us on the right track in regard to their optical refinements. I should like, however, to point to one very curious discrepancy between what he says and the actual facts with regard to the Parthenon. He states explicitly that the entablature should be set forward, otherwise, he says, it being foreshortened to the eye looking upward, the apparent height is diminished, and the effect of proportion the architect wishes to gain is spoilt. That is logical, yet the fact is that the whole entablature of the Parthenon all sets backward, except only as to the corona, which is set forward, as Vitruvius says it ought to be. I think, however, that it is very possible that Vitruvius was right with regard to the general system of the Greeks in their buildings, and his theory is that which was adopted by the late Mr. John Pennethorne. I should like to think that Vitruvius was right with regard to what he says as to Greek architecture, because I think his view with reference to the Greek stage—that is the raised stage and for the principal performers, with the orchestra down below—is absolutely in accordance with the spirit and construction of the Greek drama, and therefore I really hope that we may consider Vitruvius as a sort of witness in favour of that theory. Professor Brown made some amusing remarks as to Vitruvius being up to date in art criticism. Is he not up to date in some other things? I was turning over my Vitruvius this morning in anticipation of listening to Professor Brown's Paper, and I could not help being struck with the fact that some of his directions as to the arrangement of the temples are only modern practice expressed in another way. For instance, when he says the temples of Bacchus should always be near the theatres, if you walk along the Strand you will find that Vitruvius is quite up to date in that respect.

Mr. JOHN SLATER [*F.*].—I should like to add my word of thanks to Professor Brown for this really interesting Paper which he has given us. There is one thing which strikes me as of special interest, and that is his account of the extreme refinement with which Vitruvius describes the plaster-work of the ancients as having been executed; and this explains to us a little the charm of the colour decorations of buildings. With regard to Vitruvius, I have always urged upon students the study of Vitruvius, because I think nowadays we are getting to lose what good there is in him altogether. One point which has always struck me, and which a little illustrates what Mr. Statham has said, is this: that Vitruvius shows us more than any one else that an architect must be a many-sided man, and that it is a great mistake for any architect to attempt to limit himself to one style. In the present day, when the requirements of modern architecture and modern buildings are so diversified, a man will find himself in a Procrustes bed if he attempts to build in one style only; and I am sure it will do all students of architecture good, and do us good too, if we occasionally turn to Vitruvius and read his account of what an architect ought to be. I have great pleasure in supporting the vote of thanks.

Mr. WM. WHITE, F.S.A. [*F.*].—Sir, we are all very much indebted to Professor Brown for bringing the subject forward. It seems to me that Mr. Statham's remarks are perfectly true and justifiable, but I think we ought to go back, like Vitruvius, and agree upon some principles of construction and proportion which have been very little considered as matters of geometrical principle. I think that the geometrical principle of proportions is so essential to true harmony and elegance in architecture that, whatever style may be adopted, there ought to be some systematic mode and some agreement for carrying it out in practice. As to the popularity of Vitruvius, I think there is just one simple account to be given of it, and that is knowledge, which is power, and which will, I hope, continue to last a long time in the interest of architecture.

The vote of thanks, having been put, was passed by acclamation.

Professor BALDWIN BROWN [*H.A.*].—Mr. President and Gentlemen, I have inflicted rather a long Paper upon you this evening, so I will not take up more time with any remarks. I can only thank you very warmly for the kind attention which you have given to my Paper, and also for the kind way in which you have responded to the vote of thanks. There are many interesting points which have been raised by some of the speakers which I should like to deal with, but it would take me too long to follow them out. With regard, however, to what has been said about Alberti, he grumbles at Vitruvius, and I think he is the man who says that Vitruvius wrote Latin like a Greek and Greek like a Latin. I think Alberti's book was prepared in 1440, though it was not published till far nearer the end of the century; but I think he certainly does say so of Vitruvius in manuscript. There is one point I should like to argue with my friend Professor Aitchison: as to the use of archæology in the matter of art. Of course, there is a way to use and there is a way to misuse archæology in art, but in certain departments I think undoubtedly archæological knowledge is of the greatest value when we are dealing with materials in decorative processes. People in olden times had the advantage of knowing more about the material and the work which they did; the material grew with the work in a way of which we have lost the secret. Take, for example, gold-work and plaster-work. There are other things in which, of course, archæology may stand in the way of a man's practical work, but in a good many decorative processes I think the more archæology we have the better. A question has been touched upon by one or two speakers which I was obliged to avoid in my Paper—namely, the question of optical refinements. Professor Aitchison has mentioned one of them. Wilkins's explanation of our dear old friend "*Scamilli impares*" is very natural, but it does not agree with Vitruvius. Vitruvius says that the

addition has to be obtained "*per Scamillos imparis*," but, according to Wilkins's explanation, they come after to counteract the addition which is used—just in the opposite way in which Vitruvius seems to couple them. Vitruvius seemed to see a horizontal pavement hollow. I have tried for years to see that pavement hollow, but for the life of me I cannot do it. I cannot see these curves in any buildings which are set out absolutely straight. A friend at the British Museum assured me that the lines of that building were perfectly straight, and I must confess that I could not see that they were otherwise. [PROFESSOR KERR.—You know, of course, the case of the hog's back.] There is this difficulty in dealing with the subject. Some people explain these curvatures as being intended to counteract an appearance of depression, and to make the thing look straight; others say that the curves are used in order to introduce delicate rounded lines instead of the rigid mechanical straight lines. I think we should make up our minds first of all as to whether the lines are intended to give the impression of straight or curved lines. I think there has been a good deal of confusion with regard to the matter. Professor Dörpfeld's book on the matter is by far the best book which has appeared in recent times. He tells us that he has gone to buildings and measured and scaled them, and he gives us the measures and scales. His book is a book of great interest, and very actual, if I may use the term. He does not believe in the curves in the least; and, although I do not venture to express an opinion, still I think it is a matter which requires considerable investigation and discussion. With regard to what has been said as to the Greek stage, I agree thoroughly with what Mr. Statham has said—namely, that if you wish to obtain artistic effect you must have the elevated stage. In summing up the matter, so far as it has gone, Professor Curtius, of Berlin, has expressed his opinion that probably there was a stage of wood—probably a temporary stage—and does not believe in Professor Dörpfeld's theory that the actors walked about in the midst of the chorus on stilts.

MINUTES. XIV.

At the Fourteenth General Meeting (Ordinary) of the Session, held on Monday the 15th inst., at 8 p.m., Mr. J. Macvicar Anderson, *President*, in the Chair, with 29 Fellows (including 7 members of the Council), 20 Associates (including 2 members of the Council), 2 Hon. Associates, and 20 visitors, the Minutes of the Fifty-eighth Annual General Meeting, held on the 1st inst. [see p. 331 *ante*], were taken as read and signed as correct.

The decease of the following Fellow was formally announced, namely:—George Pownall.

The following Associate, attending for the first time since his election, was formally admitted, and signed the Register, namely:—William Edwin Johnson.

The following candidates were recommended for admission: As FELLOWS [F.R.I.B.A], Robert Walker (Windermere), Frederick Montague Gratton [*A.*] (Shanghai), John Flavel Curwen (Kendal), Arthur Crow [*A.*], Frederick Bennett Smith (Manchester), Thomas Egbert Lidiard James, Thomas Stevens (Bournemouth), Francis Edward Caws (Sunderland), Edward Glover (Dublin); as ASSOCIATES [A.R.I.B.A.], John William Blakey (Liverpool), Albert Edward Dixon (Leeds), William James Anderson (Glasgow), Fred William Lines (Tring), Thomas Ashton Lofthouse (Middlesbrough), Marshall Robinson (Bolton), Benjamin Priestley Shires (Plymouth), William Clarke Ashworth, William Henry Beevers (Leeds), Henry Blackbourn, Sidney Frank Harris (Northampton), James Ransome, Arnold Thorneley (Southport), Charles Arthur Ford Whitcombe, Edmund Blayney Clark (Birmingham), Charles James Clark (Aldershot), Henry Currie Creighton (Newport, Mon.), William Richard Gleave (Manchester), Gilbert Murray Simpson (Brighton), Edwin Arthur Hill (Brentwood), Edmund Dealtry Pickford, Andrew Robertson (Glasgow), William Cowie (Glasgow), Charles Henry Hebblethwaite (Ipswich), Frank Tupper White, Percy Frank Hockings (Brisbane), Alfred Gladding; as HON. ASSOCIATE, Alexander Wood, M.A.Oxon.; and as HON. CORR. MEMBER, Eugène Müntz (Paris).

The President having referred to a Meeting of the Architectural Publication Society held during the past week [see below], and to the work of Professor T. Hayter Lewis [*F.*], Mr. Wyatt Papworth [*F.*], and Mr. Arthur Cates [*F.*] in connection with the *Dictionary of Architecture*, it was, by acclamation,

> RESOLVED, that the thanks of the Institute be recorded to Professor T. Hayter Lewis [*F.*], Mr. Wyatt Papworth [*F.*], and Mr. Arthur Cates [*F.*], for their labours in connection with the publication of the *Dictionary of Architecture*.

A Paper, by Professor G. Baldwin Brown, M.A. [*H.A.*], on "How to use Vitruvius," was read by the author. In the discussion which ensued, Professor Kerr [*F.*], Professor Aitchison, A.R.A. [*F.*], Mr. H. H. Statham [*F.*], Mr. John Slater [*F.*], Mr. William White [*F.*], and the President took part. Whereupon it was

> RESOLVED, that the thanks of the Institute be recorded to Professor G. Baldwin Brown, M.A. [*H.A.*], for his Paper.

Professor Baldwin Brown having replied and acknowledged the compliment, the Meeting separated at 10.15 p.m.

ARCHITECTURAL PUBLICATION SOCIETY'S DICTIONARY.

A General Meeting of subscribers was held at No. 9, Conduit Street, on Thursday, 11th inst., at 4 p.m., Professor T. Hayter Lewis (Treasurer) in the Chair. The Secretary (Mr. Arthur Cates)

read the notice convening the Meeting, and the Minutes of the last Meeting on the 30th of April, 1888, were read and signed as correct.

The following Report was presented to the Meeting:—

The Report of the Committee presented to the General Meeting of Subscribers held May 11th, 1888, set out in full detail the then position of the Society, and the necessity for raising further funds to secure the completion of the *Dictionary of Architecture*, the balance available to meet an expenditure estimated at not less than £750, being only £99. 8*s*. 3*d*.

At this Meeting resolutions were adopted declaring that the funds required should be raised by each Member (excluding those who had joined since 1875, and had paid £21 in full) contributing at once £2. 2*s*.

The cost of producing the concluding Part of the *Dictionary*, T–Z, was then estimated at £750. It was anticipated that contributions to be paid by the Members might realise £650, which, with the balance in hand, £99. 8*s*. 3*d*., would together probably meet the expenditure on the Part, while the subscriptions of New Members for complete sets and the sale of odd parts would amply meet all contingencies.

The result of the appeal to the Members ultimately produced £541. 16*s*. from the contributions of 258 subscribers. Although this result, only obtained after many months, did not realise the expectations which had been formed, progress was at once resumed, and the concluding part, T–Z, was issued in May 1892, when the subscription price for the part was raised to £3. 3*s*.

The Auditors appointed at the last General Meeting were Messrs. Thomas Henry Watson and Charles Richard Pink. The lamented death of Mr. Pink created a vacancy, which Mr. Sydney Smirke kindly consented to fill; he and Mr. Watson have accordingly audited the accounts and signed the statement thereof appended hereto.

The convening of the General Meeting of subscribers and the closing of accounts has been delayed in order that the financial equilibrium might be restored by the results of the payments made by new subscribers for complete copies, and by others for odd parts to make up their sets of the *Dictionary*. As the result, there has been received from these sources no less than £313. 10*s*. 4*d*., making, with the balance brought forward in 1888, and interest received on deposits, a total amount of £979. 10*s*. 9*d*. available to be appropriated for the purposes of the Society.

The actual expenditure in producing the concluding part, T–Z, and the incidental outgoings as set out in detail on the accompanying balance-sheet, have amounted up to March 31st, 1893, to £816. 1*s*. 9*d*., leaving a cash balance of £163. 8*s*. 10*d*. available to meet current expenses, the appropriation of any balance which may remain after they have been defrayed being left for determination by the Meeting.

"The Retrospect" issued with the concluding part, T–Z, summarised the history of the Society from its commencement, and detailed the progress of the *Dictionary* and the difficulties encountered, from its inception in 1852 to its completion in 1892.

The work has been based on "The List of Terms" prepared with great care by Mr. Wyatt Papworth during the years 1849–52. This list, which was then thought to be exhaustive, and, in fact, capable of reduction, comprised 12,127 terms, while the articles actually printed number 18,456.

That financial restrictions which had to be faced have not induced the Editor (Mr. Papworth) to cut down the number of articles in the later letters, is shown by the fact that the four letters T, U, V, W, had allocated to them in the original list 1,167 terms, while 2,518 articles have been actually printed under these four letters: figures which give a fair idea of the serious development of the task undertaken as it gradually progressed, and the care in compression and condensation necessitated by the limited means at the disposal of the Society.

The *Dictionary of Architecture* as completed comprises 2,288 folio pages of text and 152 plates; the total expenditure in producing the work may be taken to have been £9,550, out of which the cost of the MS. has been £2,600.

It had been hoped that the completion of the *Dictionary* would have led to the entire stock of complete sets being taken up by new subscribers; but, although much success has attended the efforts made to attain this, in the result eight sets remain unappropriated. For the disposal of these the effective assistance of the Members is requested, so that they may be speedily taken up by new subscribers, either for their own libraries, or for presentation to public libraries and institutions—old and new—wherein so valuable a book of reference would be welcomed and appreciated.

Of the Parts issued in recent years, a considerable number remain available for the completion of the sets by those who now possess the Parts issued in earlier years. For these *immediate application* should be made, as they will not be procurable after the affairs of the Society have been finally closed.

The original idea of a great "Cyclopædia of Architecture" having in 1852 become merged in the more modest scheme of the *Dictionary*, the main object for which the Society has for the past forty years been carried on has been fulfilled by the completion of that work; and wide a field as there may be for prosecuting some of the views shadowed forth at its foundation, it is not desirable that its existence should be prolonged, and, with this intention, the expediency of immediate dissolution will be submitted to the Meeting; the disposal of the remaining stock, and the appropriation of the cash balance, being determined before the Society is dissolved.

As regards the stock, the Society is distinctly pledged not to allow a copy to be issued at less than the subscription price of £21. It will be therefore proposed that if, after the lapse of, say, six months, any complete sets should remain unappropriated, they should be presented to Public Libraries or Institutions, and thus be taken out of the market.

The stock of *odd Parts* to be retained in hand for, say, twelve months, to allow time for the making up of sets and making good imperfections; after that period all to be destroyed.

The cash in hand will suffice to meet all current expenses until the affairs are entirely closed; and even should no further moneys be received by the sale of Sets or Parts, some small surplus will remain available to be appropriated as the Meeting may direct.

Resolutions will be submitted to the Meeting providing for:

1. The appropriation and ultimate disposal of the remaining stock.
2. The appropriation of the cash balance which may remain available when the stock has been finally distributed.
3. The dissolution of the Society.

Statement of Accounts from 1st March 1888 to 31st March 1893.

RECEIPTS.

	£	s.	d.
Balance in the hands of the Treasurer, 1st March 1888, as per Balance Sheet audited 13th April 1888	99	8	3
Interest received on Deposit Account	24	16	0
258 Subscriptions received towards the completion of the *Dictionary*, at £2. 2*s.* each	541	16	0
New Subscriptions—Sale of Parts to make up set, &c.	313	10	4
	£979	10	7

EXPENDITURE.

	£	s.	d.
Rent to Christmas 1892 (5 years)	50	0	0
Insurance of Stock to Christmas 1893	23	13	0
MS. of *Dictionary*, the letters T, U, V, W, X, Y, Z, 288 pages folio	304	10	0
Printing Text, T–Z, Title Pages, Indexes, List of Subscribers, Retrospect, and Sundries	347	17	0
Binding Parts	13	7	0
Packing, Carriage, and Delivery of Parts	16	17	11
Circulars and Advertising	26	12	8
Reporting Proceedings of Meeting	2	0	6
Allowance to Booksellers	6	9	1
Miscellaneous Expenses, Postages, Clerical Assistance, &c., &c.	24	14	7
Total Disbursements	£816	1	9
Balance in hand, 31st March 1893	163	8	10
	£979	10	7

Examined with the vouchers and found to be correct, the balance in hand being one hundred and sixty-three pounds eight shillings and tenpence (£163. 8*s.* 10*d.*).

THOMAS HENRY WATSON,
SYDNEY SMIRKE, } *Auditors.*

10*th April* 1893.

ASSETS.

The Balance in hand, £163. 8*s.* 10*d.*
The value of the stock as yet unappropriated.

LIABILITIES.

Rent, Expense of General Meeting, and Current Expenses.

On the Motion of the Chairman, seconded by Mr. J. T. Christopher, the Report was received and adopted.

MR. ARTHUR CATES stated that he had had several applications from gentlemen to buy up remainders, but in view of the distinct pledge given by the Committee not to at any time allow the issue of copies at less than the original subscription price, in order to guarantee the subscribers against any depreciation in value by a remainder being thrown upon the market, he had been unable to accede to any of the applications.

After some discussion as to different Libraries to which it would be desirable to present copies of the *Dictionary*, it was, on the Motion of the Chairman, seconded by Mr. Hansard,

RESOLVED, *nem. con.*, that the Honorary Secretary be requested to take charge of remaining stock to supply such demands for complete copies as may be made within twelve months from this day; and if any should then remain unappropriated to present them as follows: (1) To the Royal Institute of British Architects; (2) To the Imperial Institute Library; (3) To the British Museum; (4) To the Royal Institution; and others at the discretion of the Honorary Treasurer, Honorary Secretary, and Mr. Papworth.

The next Resolution, moved from the Chair and seconded by Mr. Wyatt Papworth, was as follows: That after the lapse of twelve months the Honorary Secretary be authorised to exercise his discretion as to parting with, or destroying, the remaining stock of odd parts; and that the numerous wood blocks be offered to the Royal Institute of British Architects, and, if not accepted by them, be also destroyed.

THE CHAIRMAN then announced that when the stock was finally disposed of it was anticipated that there would be a balance of about £160 unappropriated. He reminded the Meeting that at the date of their last Meeting, in April 1888, the audited statement of accounts showed that the balance available at that time to meet current expenses was £99. 8*s.* 3*d.*, a result which had only been attained by an act of self-sacrifice on the part of Mr. Wyatt Papworth. When the production of the *Dictionary* was resumed, it was arranged that the remuneration to be paid to Mr. Papworth for his labour should be at the rate of £1. 11*s.* 6*d.* for each printed page of the *Dictionary*; but, after some progress had been made with the letter P, it was found that if the funds in hand were to be made sufficient to carry on the work to the end of the letter S, that already inadequate remuneration should be reduced to the still smaller sum of one guinea per printed page. Mr. Papworth, in his earnest desire to see this great work—which originated with him, and which has occupied so much of his active life—brought to a satisfactory conclusion, generously offered to devote himself and his collections to the bringing out of the remaining letters, and to accept

the like utterly inadequate payment for his services. He desired, therefore, to move from the Chair: "That, as it appears from the Report "that there will remain an unappropriated "balance of about £160, it is hereby agreed that "£100 of that balance be presented to Wyatt "Papworth, Esq., as a small recognition of the "self-sacrifice which he has made in carrying "out the work of the *Dictionary*, as specially "noted by the Committee in their Report of 27th "April 1888." He further stated that the only other suggestion for the appropriation of the balance that had been received by the Committee was to the effect that it should be expended in reprinting the "detached essays," with their plates and the plates published in 1848–52 in anticipation of the *Dictionary*; but, inasmuch as the balance of £160 would not in any way suffice for that purpose, he thought it better not to formally put the proposition before them.

MR. ROWE had much pleasure in seconding the Resolution, which was carried unanimously.

THE CHAIRMAN then stated that while Mr. Papworth's active co-operation had been indispensable, it was also beyond question that the work never could have been carried through with Mr. Papworth or without him, had it not been for the energetic co-operation of the Honorary Secretary, Mr. Arthur Cates. From first to last he had made up his mind that the work should be a success; and when, in 1888, there was a question as to whether subscriptions would come in, and the funds would be sufficient, Mr. Cates had offered to guarantee its completion. In Mr. Cates's presence he did not like to say all he felt, but he warmly commended to the Meeting the following Resolution, of which he was sure they would heartily approve: "That so much of the "balance of about £63 as can be safely employed, "after allowance for possible expenses, be made "over to a Committee with power to appropriate "the said balance in such mode as they may "find most agreeable to Mr. Cates in recognition "of the very great services which he has rendered "in securing the completion of the *Dictionary*."

MR. ROWE seconded the Resolution, which was carried with acclamation.

The following gentlemen were elected to form the Committee:—Mr. Macvicar Anderson, President of the Royal Institute of British Architects, Professor Aitchison, and Professor Hayter Lewis.

MR. PAPWORTH and MR. CATES both thanked the Meeting for their kindly expressions towards themselves, and for the Resolutions which they had passed.

It was then proposed and carried that should the balance be larger than was expected, the difference should be added to the £100 which was to be handed to Mr. Papworth.

After a cordial vote of thanks to the Chairman for his services as Honorary Treasurer for so many years, and for presiding on the present occasion, and also to Mr. Cates, the Honorary Secretary, and to Mr. Wyatt Papworth as the working member of the Society, for the energy with which they had carried the work to its completion, on the motion of the Chairman, seconded by Mr. Rickman, it was

RESOLVED, that the funds and property of the Society be handed over to the Honorary Treasurer, Honorary Secretary, and Mr. Papworth to be appropriated in accordance with the preceding Resolutions; and that the Society be dissolved from this day.

The Meeting then separated.

OBITUARY.

Thomas Stone, *Fellow.*
1836–1893.

Mr. Stone was articled to Mr. C. Hambridge, of Coleman Street, E.C., in 1853, and served as clerk and assistant until 1862, when he entered into partnership with his brother, Mr. William Stone, with whom he continued until the time of his death. They commenced practice at 2 Great Winchester Street, E.C. Among the buildings carried out under their superintendence may be mentioned St. Stephen's Schools, Spitalfields; St. Paul's German Protestant Church and Schools, Whitechapel; also several chapels for the Primitive Methodists, one of which was at Camden Town. He was elected a Fellow of the Institute last year.—C. T. STONE.

George Pownall, *Fellow.*
1808–1893.

Mr. George Pownall, who died on the 30th ult., was born in April 1808, becoming at an early period a pupil of Maddox, and for some years was in partnership with the late Francis Wigg, senior, of 7, Bedford Row, until about the year 1855. Mr. Pownall was appointed Architect and Surveyor to the Law Fire Office at its commencement (in conjunction with the late Thomas Bellamy), and he also held the appointment of Surveyor to the Eton College Estate, and to many other important estates in London. He was appointed by the Government to purchase the sites for the new Law Courts and for the General Post Office additions, and had a very large reference and arbitration practice up to the time of his retiring from business, which took place in 1884, owing to failing health.—GEO. H. POWNALL.

TRADE LISTS.

SPONS' Engineers' and Contractors' Illustrated Book of Prices of Machines, Tools, Ironwork, and Contractors' Material, 1892–93, contains 562 quarto pages, most of which are illustrated. The subjects dealt with include steam-engines and machinery of various kinds, structural iron and steel work, ornamental ironwork, electrical fittings, and scientific and mathematical instruments, &c. An index of some dozen pages completes a useful volume.

Messrs. J. M. BENNETT & SONS, of Manchester, send an excellently prepared catalogue of "Goehring," which is the name given to a

special class of wood mouldings made by Dr. C. L. Goehring's Geometrical Wood Moulding Machinery. Particulars are given of the several uses to which the material can be put, and are accompanied by cuts, carefully printed.

Mr. JOHN TANN's illustrated List of Doors, Locks, and Safes contains 30 large quarto pages of illustrations and prices of various descriptions of safes and strong-rooms, &c.

The illustrated Catalogue issued by Messrs. LONGDEN & COMPANY contains several pleasing designs for grates, fenders, fire-irons, fire-dogs, &c., both in brass and wrought-iron, with prices attached. Some designs are also given for stair-balusters, coil cases, and memorial brasses.

From the RUABON BRICK & TERRA COTTA COMPANY a large folio catalogue containing 100 plates of arches, architraves, balconies, balustrades, chimney-pieces, corbels, cornices, doorways, gables, buildings, mullions, and panels, in brick and terra cotta. The designs shown in detail are all about one quarter full size; the sketches and treatments are all to an approximate scale of ½-inch to one foot, thus the proportion of the various patterns to each other are easily determined.

ALLIED SOCIETIES.

ELECTIONS OF OFFICERS AND COUNCIL.

THE MANCHESTER SOCIETY.

At the Annual General Meeting of the Manchester Society of Architects, Mr. Edward Salomons [*F.*], President, in the chair, the Report was read and adopted, and the Officers and Council for 1893–94 were elected as follows:—President, Mr. Edward Salomons [*F.*]; Vice-Presidents, Mr. John Holden [*F.*], Mr. W. A. Royle [*F.*]; Hon. Secretary, Mr. Paul Ogden [*F.*]; Assist. Hon. Secretary, Mr. Edward Hewitt [*F.*]; Members of Council—Messrs. A. H. Davies-Colley [*A.*], Thomas Chadwick [*A.*], John Ely [*F.*], R. Knill Freeman [*F.*], Frank W. Mee, J. D. Mould [*A.*], James Murgatroyd [*F.*], J. H. Woodhouse [*F.*], Thomas Worthington [*F.*], P. Hesketh [*A.*], J. S. Hodgson, and H. E. Stelfox [*A.*]. Messrs. Henry Bridgford [*F.*], and P. E. Barker [*A.*] were elected Auditors.

THE NOTTINGHAM SOCIETY.

Mr. Robert Evans [*F.*], President, took the chair at the Annual General Meeting of the Nottingham Architectural Society, held on the 24th ult., and the following gentlemen were elected Officers and Council for the ensuing year of office:—President, Mr. W. Arthur Heazell [*F.*]; Vice-President, Mr. J. Howitt [*F.*]; Hon. Secretary and Treasurer, Mr. A. Ernest Heazell; Members of Council—Messrs. A. N. Bromley [*F.*], Robert Booker, Arthur Marshall [*A.*], A. Harrison Goodall and Frank B. Lewis [*A.*].

THE LEEDS & YORKSHIRE SOCIETY.

The Seventeenth Annual General Meeting of the Leeds and Yorkshire Society was held on the 24th ult., with Mr. G. B. Bulmer [*F.*], President, in the chair. In the Annual Report, which was read and adopted, the number of members was stated to be 121, as against 110 the previous year. The Officers and Council were elected as follows:—President, Mr. G. B. Bulmer [*F.*]; Vice-Presidents, Mr. H. B. Buckley and Mr. J. H. Greaves; Hon. Treasurer, Mr. W. A. Hobson; Hon. Secretary, Mr. W. Carby Hall [*A.*]; Hon. Librarian, Mr. W. J. Mettam [*A.*]; Members of Council—Messrs. W. H. Beevers, E. J. Dodgshun [*F.*], G. F. Danby, A. Marshall, C. H. Thornton, and W. Watson. Mr. F. W. Bedford [*A.*] and Mr. A. E. Kirk [*A.*] were elected Auditors.

THE NORTHERN ASSOCIATION.

The Annual General Meeting of the Northern Architectural Association was held on the 26th ult., Mr. J. H. Morton [*F.*], President, in the chair. The Annual Report, which was read and adopted, recorded, among other matters, the increasing prosperity of the Association, the engagement of permanent rooms for meetings and for the library, the drawing up of a curriculum of study for the younger students, and the success with which in more than one instance the influence of the Association had been brought to bear on local authorities, school boards, &c., in the matter of competitions, with a view to obtain unimpeachable dealings and the appointment of professional assessors. The Officers and Council for the ensuing year were elected as follows:—President, Mr. J. H. Morton [*F.*]; Vice-Presidents, Mr. Joseph Oswald [*F.*] and Mr. John Cresswell; Hon. Treasurer, Mr. J. T. Cackett [*F.*]; Hon. Secretary, Mr. Arthur B. Plummer [*F.*]. Council—Messrs. H. C. Charlewood [*A.*], W. S. Hicks, W. H. Knowles [*F.*], Frank W. Rich, J. W. Taylor [*F.*], H. G. Badenoch, and G. T. Brown. Messrs. W. Glover and J. W. Twist were elected Auditors.

THE LIVERPOOL SOCIETY.

The Annual General Meeting of the Liverpool Architectural Society was held on the 1st inst., Mr. T. Harnett Harrisson [*F.*], President, in the chair. The Annual Report, which showed that the membership had increased from 115 to 125, having been adopted, the Officers were elected as follows:—President, Mr. Henry Hartley [*F.*]; Vice-Presidents, Mr. Alfred Culshaw [*F.*] and Mr. H. W. Keef; Hon. Treasurer, Mr. James Dod; Hon. Secretary, Mr. Henry L. Beckwith; and Hon. Librarian, Mr. J. L. Blakey.

THE SHEFFIELD SOCIETY.

The Sixth Annual Meeting of the Sheffield Society of Architects and Surveyors was held on the 9th inst., Mr. Innocent [*F.*], President, in the chair. The Reports of the Hon. Secretary and Treasurer were read and adopted. From them the Society appeared to be in a flourishing condition, and the classes for the study of design, architectural history and sketching, inaugurated in the early part of the session, under the management of Mr. Gibbs and Mr. J. R. Wigfull, to have been attended by a good number of young architects. A beginning also had been made towards the formation of an Architectural Library. A ballot took place for the election of the Officers and Council for the ensuing session, Mr. T. Winder and Mr. C. Gibson being the scrutineers, with the following result:—President, Mr. E. M. Gibbs [*F.*]; Vice-President and Treasurer, Mr. J. B. Mitchell-Withers [*F.*]; Hon. Secretary, Mr. C. Hadfield [*F.*]. Council—Messrs. T. J. Flockton [*F.*], F. Fowler, C. J. Innocent [*F.*], J. Smith, and W. C. Fenton.

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SESSIONAL NOTES.

An Invitation to members.

On the occasion, on Monday evening, 19th inst., of the presentation of Her Majesty the Queen's Gold Medal to Mr. Richard M. Hunt, the first Citizen of the United States who has been elected a Royal Gold Medallist, the President will hold a reception of the members of the Institute in the Conduit-street Galleries, particulars of which are given in the *Supplement* issued with this number of *The R.I.B.A. Journal.* The Reception will take place at 8 o'clock, and the presentation of the Medal at half-past eight, followed by a selection of music by the Meister Orchestra, about half-past nine, when refreshments will be served. The President hopes that a large number of members will give him the pleasure of their company on this occasion, and assist the Council in welcoming Mr. Hunt, who is crossing the Atlantic expressly to attend the Meeting.

The Dictionary.

It will be remembered that, at the General Meeting of the Institute held on the 15th ult., a vote of thanks was passed by acclamation to the three gentlemen to whose arduous labours is due the successful completion of the Dictionary of Architecture. Foremost among them, said the President [see p. 368 *ante*], was Mr. Wyatt Papworth, who now, in acknowledgment of the compliment, writes as follows:—This perfectly unexpected vote is most highly esteemed by me, and I hasten to offer my sincerest thanks for the added dignity conferred on me in this testimony of esteem and regard from the Institute, with which I am so intimately connected, and whose opinion I have always greatly valued. On the completion of my labours I must again acknowledge that but for the able and ready assistance of all the members—past and present—of the Committee, and numerous friends both in and out of the Institute, the Dictionary could not have been rendered so complete. Warmest thanks are likewise due from me to the Subscribers for their friendly patience during delays, from unavoidable causes, too often occurring in the production of the work.—WYATT PAPWORTH.

Certificated Masons.

The College of Certificated Masons, so long advocated by Mr. Lawrence Harvey and his supporters, appears at last to be an accomplished fact, so far at least as President, Vice-Presidents, Members of Council, and a prospectus of "Objects," "Means," "Classes and Qualifications," "Government," &c., headed by the word "Charter," are concerned. The primary object of the College is stated to be "the application of Descriptive Geometry to setting out masonry and to "stone-cutting;" and only fully qualified practical masons who have obtained cer-

tificates from the City and Guilds of London Institute, are admitted as subscribing members, consisting of two classes, Fellows and Associates. The higher grade is, or is to be, composed of masons who have passed an examination on their work and have served as clerks of works, managers of large firms, or general foremen; the junior grade, of masons who hold a Lower Class Certificate, or who offer proofs of scientific knowledge of equal value. There are also two classes of non-subscribing members, Honorary Fellows and Honorary Associates, and the President must belong to the former class. The President of the new College is Sir Arthur W. Blomfield, A.R.A. The knowledge of the Science of Stereotomy, which this College is to promote, is more general among architects and artisans in France and other Continental countries than it is in the United Kingdom; and it may, therefore, be not inappropriate to add that Professor Louis Monduit's *Traité Théorique et Pratique de la Stéréotomie au Point de Vue de la Coupe des Pierres* (Paris 1889), has recently been added to the Library of the Institute.

Americans and the Schedule.

The correspondence [p. 279 *ante*] between the Lord Chief Justice of England and the President of the Royal Institute of British Architects has elicited some excellent comments from *The American Architect* in its issue of the 10th ult.; and the remarks of the Boston professional journal, while not uncomplimentary to Lord Coleridge, are extremely agreeable to the Institute. "On the whole," says *The American Architect*, "President Anderson and the Institute "seem to have come out very well from the correspondence, while Lord Coleridge's "disclosure of the private experience which has coloured his treatment of architects "ever since will not add much to the authority of the precedents which his decisions "have set. His statement of the law, that 'where there is no specific sum for pay-"'ment agreed upon, the law implies a contract to pay what is reasonable, and what is "'reasonable is for the jury, not for the Institute of Architects,' is so misleading as to "indicate that he was inwardly rather ashamed and embarrassed at the recollection "of his official expressions. Every one knows that, while the law, in the absence of a "specific sum, implies a contract to pay what is reasonable, it holds that custom is "admissible to show what is reasonable. People who deal for the first time with real-"estate agents rarely know anything more about the rules of the real-estate exchange "than clients do about the Institute Schedule, yet real-estate agents collect their fees "without difficulty in accordance with their rules, which the courts hold to be of more "authority than the arbitrary whim of a jury, although, in many cases, they award to "the real-estate agent more money for less work, than any architect was ever able to "collect by any process of 'extortion' whatever."

Architects' Registration Bill.

The Second Reading of the Architects' Registration Bill is again deferred, this time until the 12th inst. It is one of the Bills which come under the category of those recently described by Mr. T. Gibson Bowles, M.P., in *The Times*, as smuggled through the House of Commons during the small hours of the morning. Every night, after twelve o'clock, when all but a very few Members have left, says Mr. Bowles, a large number of Bills (sometimes over seventy) are set down to be advanced a stage. The title of the Bill and the stage to be dealt with are read out by the Clerk at the table; the Member in charge murmurs "Now"; the second, or it may be the third, reading is put; and, hey presto! a new law is made for England inside of ten seconds, and often without anybody but the Member in charge of the Bill knowing anything whatever about it beyond its title. It may be added, in support of this graphic description, that the Architects' Registration Bill would have been read a second time on the 11th ult. had not Sir Edmund Lechmere stayed in the House beyond the usual hour expressly to oppose it. As Mr. Bowles further states, the public are little aware of the passages of arms which nightly occur in a comparatively empty House of Commons between "the preventive officers "and the smugglers."

THE ALLIED SOCIETIES:
REPRESENTATION ON THE COUNCIL.

Special General Meeting, 5th June 1893.

[Mr. J. Macvicar Anderson, *President*, in the Chair.]

A Resolution passed by the Conference of Allied Societies held in Liverpool on the 21st April last, to the effect that steps should be taken to modify By-law 25 so that the President for the time being of each provincial centre should have a seat on the Council of the Institute, formed the subject of discussion on Monday, at a Special General Meeting summoned for the purpose. The recommendation of the Council, supporting the Resolution of the Liverpool Conference, was not pressed, and the matter was ultimately referred back for re-consideration, as will be seen in the following report.

THE PRESIDENT.—Gentlemen, this is, as you are aware, a Special General Meeting called for the purpose of receiving and considering a recommendation from the Council to so modify By-law 25 as to permit every Allied Society to be represented on the Council of the Royal Institute. By-law 25 enacts that:—"The Council shall consist of not more than 36 members, viz.:—(*a*) The President, four Vice-Presidents, an Honorary Secretary, 18 Members of Council, and two Associate-Members of Council; (*b*) Chairmen for the time being of Branches of the Royal Institute within the United Kingdom, established as hereinafter provided; (*c*) Presidents for the time being of Societies within the United Kingdom in alliance with the Royal Institute, as hereinafter provided, such Presidents being Fellows of the Royal Institute; (*d*) one Fellow or Associate of the Royal Institute as representative of the Architectural Association (London)." I move that the words "not more than 36" be omitted, and that in lieu thereof the words "the following" be inserted, and that the necessary steps be taken to effect such modification of the By-law. At present there are 36 members of the Council. When you take into account the President, four Vice-Presidents, Honorary Secretary, 18 Members of Council, two Associate-Members of Council, and a representative of the Architectural Association, it leaves only nine vacant places to be occupied by the Presidents of the Allied Societies. This necessitates a very invidious operation in the selection of gentlemen nominated as representing the Societies, there being only nine places and 13 candidates. The Council therefore think that the proper course to pursue is to give effect to the By-law which states that Presidents for the time being of Allied Societies should have a seat on the Council of the Royal Institute, and in that way we should be able to have a representative from each Allied Society. It is scarcely to be expected that the representatives of the Allied Societies, even if they have a seat on the Council, will be much with us. The distance is too great, and the occupations of life are too intense, to expect this; but in other ways communications between the Institute and Allied Societies will take place, and the fact of having as a member of the Council a representative of each Allied Society affords an admirable opportunity for intercommunication of ideas, both from us to them and from them to us. It has been represented to me that there is what I may perhaps call a certain amount of unfairness in the proposal, inasmuch as a number of Fellows of the Institute will have their vote as members of the Institute, and a vote also in electing the Presidents of Allied Societies. I do not think that is a thing we need trouble ourselves much with; if the Allied Societies were to increase materially, and if their representatives were to attend our meetings regularly, there might be something in the theoretical objections which have been represented to me against the course we propose to take. I look upon these as contingencies not likely to occur, and I would ask the Meeting to adopt at once the generous course that we propose—that every one of our Allied Societies should be represented on the Council of the Institute. I have, therefore, great pleasure in moving the proposal that I have read to you.

MR. ARTHUR CATES [*F.*].—Sir, it affords me very much pleasure to second this proposition. I will not take up the time of the Meeting by making any observations upon it, as you have so clearly and so fully expressed the objects of those who desire to promote the end which we have in view. My views upon the subject have been very clearly expressed in the observations which I had occasion to address to the Conference of Allied Societies, held recently in Liverpool, which has been fully reported in the *Journal*.* I believe that the proposal will tend greatly to foster the interests of this Institute—and not only so, but the interests of the profession, whether members of this Institute or not.

MR. EDWIN T. HALL [*F.*].—Mr. President, with very great reluctance I rise to speak on this occasion, and in doing so I wish it to be quite clearly understood that I respect and feel the great benefit that may arise from constant correspondence with the Presidents of the Societies. I also feel that the course is a very generous one which is being proposed. But, Sir, I am afraid not only is it generous, it is unprecedented in any society in existence; and I think, Sir, you will agree with me that there are three main things which should be demonstrated in this room before this is adopted. The first, and of course the most important of all, is that it is constitutional; the second is that it is unobjectionable; and the third that, to carry out what we all desire, it is necessary to alter the By-law. Now, Sir, I fear that it is unconstitutional. If so, it cannot be done. I fear it is objectionable in a way that I think you yourself may see; and I think that all that Mr. Cates and we all desire can be done under the present By-laws. If that is so, and if

* See pp. 310–13 and 343–52 *ante*.

I can show that to the Meeting, I think you will see that it is not wise rashly to alter the By-law. It is a dangerous practice, whenever we have a little difficulty, to alter our By-laws. It presupposes that they have never been thought about at all—that those who framed the By-laws did not think of the possibility of their being put to the test. On the constitutional question, I would point out that the mover of the Resolution at Liverpool evidently thought there was grave danger that it was unconstitutional, because in the Resolution it says, "so far as it may be done constitutionally": that is in the Resolution. Now, Sir, I would point out that in the Charter, in Section 14, it is distinctly stated that the Council are to be elected. If, as proposed, these words are removed from the By-law, there will be no election, and it is proposed there shall be no election of the Presidents of the Allied Societies. They are to be *ex-officio* members of the Council of this Institute. Well, Sir, if the Charter says that members of the Council of this Institute must be elected, it follows that they cannot get seats on the Council except by election. Suppose these Societies become numerous. At the Liverpool Meeting it was shown that possibly there may be twenty. There are now thirteen local Societies. It was suggested that there would be one at Cardiff, one at Oxford, one at Cambridge, one at Southampton, one at Edinburgh. In all, about nineteen were suggested. Now, we have heard that there are some seven or eight thousand architects in England; and if there are, it is reasonable to suppose, and reasonable to hope—and I am one of those who cordially hope—that there may be more Societies even than that. Now, this question was fully considered—and of that I am able to assure the Meeting—by the By-laws Committee. Our By-laws Committee consisted of nearly all the members of the Council and some ten other gentlemen. Therefore it may be said it was a largely representative Committee. The question was raised in its broadest form there. It was discussed in its broadest form. I happen to have been the draftsman of that By-law, and I raised the question. I will read the words which were before the By-laws Committee, showing to you that the whole subject was most carefully threshed out. It was proposed in my draft that the President of every Allied Society should be included, as well as the Chairman of every Branch; and then it went on to say, so that the whole question should be raised, "but if they shall exceed "the number of twelve, then those Societies shall "be eligible which contain the largest number of "Fellows of the Royal Institute of British Archi-"tects." That, Sir, was raising the whole question in its broadest form. It was most thoroughly threshed out, and it was decided by the By-laws Committee that constitutionally the matter could not be done, and that we could not put it even that twelve of them who had the largest number of members of the Institute should be alone eligible, because it was held to be contrary to the principle of election. Furthermore, Sir, it will be in the memory of many members of the By-laws Committee who are present, that the opinion of our solicitor, Mr. Markby, was asked, and his opinion was that all members must be elected. Sir, if that is so, this proposal cannot be carried. Then you will note the form in which the By-law is drawn. When I submitted the draft to the By-laws Committee, the words were, "The President of every Allied Society." But the By-law says, "Presidents of Allied Societies." The "the" was struck out in order to suggest that it was not to be all of them—only "Presidents of Allied Societies"—some of them. The word "the" was actually struck out with the object of doing that which is now the practice of the Institute. Further, it was held by the Committee that the Council must not be unduly large; and that was why thirty-six was settled, which left nine seats for Branches and Allied Societies. That may be right or wrong. It may be prudent even to increase the number of members of the Council, but it must be regulated by the question of whether they may be elected or not. Now, Sir, have the Council considered the point how By-law 30 is affected? It says there distinctly: only those members of the Council getting the most votes are to be elected. That suggests surely that there must be some who will be rejected. Then it goes on to say that the Council—not some of them, but the Council so elected—shall remain in office till a day in June. If this suggestion is adopted, these Presidents become permanent members of this Council. There is no machinery in the By-laws or the Charter for their going out of office. Surely, if that is so—and I challenge any one present to show to the contrary—it is a dangerous course to adopt the proposal before us. We get a member *ex-officio*, and there is no provision in the Charter or By-law for his retiring. That is all I have to say on the constitutional question. On the second head, of whether it is unobjectionable—and I hope it will be understood I do not use that word in any improper or invidious sense—I have to point out this to you: At present there are thirteen Home Societies, and in the thirteen Home Societies there are 760 members, of whom no less than 530 have no connection whatever with this Institute; so that the very large majorities of the Societies who can elect their own Presidents have no interest whatever, in the proper and right sense of membership, in this Institute. Of these the preponderating majority elect these Presidents, and this preponderating majority has no relation whatever with this Institute. Now, if these Societies are increased to twenty—as we all hope they may be—there will at least, following in a less ratio than now exists, be 700 persons, in no way connected with this Institute, who will elect the Presidents. Well, Sir, what will happen is this: that the 1,500 members of the Royal Institute have the power only of recording their votes in respect of twenty-six members of the Council, while 700 gentlemen who have no relation whatever with the Institute will have the power of sending twenty members to this Board—a Board of Directors charged with the management of the

funds of this Institute, charged with the gravest responsibility, not only educational, but with all other responsibilities appertaining to the architectural profession. Now, Sir, I would point out another grave danger. This being the system that is adopted, if there are so many members as twenty members of this Council who live at great distance, you, Sir, yourself said that the great inconvenience to them of coming to town would preclude their regular or constant attendance here. Perfectly so. But they are charged with the responsibility of managing the affairs of this Institute, and it is their duty in some way to record their opinions. What is to prevent them, Sir, the Council themselves, when a sufficient majority desire it, saying that the voting at the Council table should be by proxy? There is not one single word in the Charter or By-laws to prevent it. The Charter says the Council may regulate their own proceedings; and the result would happen, and it would be a perfectly justifiable request of those twenty, that they should have the power of recording their votes by proxy at that table because they are some three or four hundred miles away. We should have the government of this Institute carried on by men largely elected by those who have no interests whatever in the funds or the membership of this Institute other than the interests which all brother architects have with one another. Then, on the last head, I say it is an unnecessary change, because it can be very well done under the present By-laws. The desired end can be obtained in this way: there are nine seats, and there is no reason why the limit of the Council should not be made forty instead of thirty-six—that is a matter of detail. [THE PRESIDENT.—That means going to the Privy Council just the same.] In any case going to the Privy Council; but, supposing it remains as it is, there are nine who can be elected under the division of Presidents of Allied Societies. Let this still be done, and let the other members be nominated to be elected among the ordinary members of the Council. If the Institute approves of that, there is no earthly reason why they should not be elected. Of these Societies there is one Society that has in its ranks only three members of the Institute—and fancy three members of the Institute having a member of the Council all to themselves! It seems to me a preposterous thing that we should have a Society, numbering among its members only three members of the Institute, with a seat on this Board of government that can administer the funds of the Institute—can do all kinds of things; award prizes, and so on—and say what shall be done with this, that, and the other. It is quite easy to do what I suggest, and I would make this suggestion to you. To ensure that these men shall all go on the Council of the Institute in regular rotation, let seven of the principal ones always be nominated under their class, and let two others of the remaining Societies be regularly nominated in rotation. The result would be that, always in rotation, there would be all the small Allied Societies represented on the Council; and, assuming there were only six of them, it would mean every third year each would have its President on the Council. Now, that is an automatic way which throws nothing invidious on the Council at all. It can be made a rule; there is no difficulty whatever in doing it, and nothing whatever invidious about it; and I am quite sure that the members of these small Societies will feel that they have been very reasonably and justly met if every third year their President is elected to the Council of this Society. Now, Sir, I have explained my three reasons, but I want to point this out. It is quite possible that on the question of education the whole of the Allied Societies may agree with the Royal Institute. It is equally possible that they may disagree on other points. We have known that, on a subject which is coming on to-night, some non-Metropolitan Societies have actually petitioned Parliament in favour of a Bill which this Royal Institute opposed most seriously. No, on questions like these, which you know members hold to be of vital importance, it is quite legitimate, and quite possible, I would say it is probable, that differences may arise; they may arise on many other points, because the views as to what an architect should do, and what he shall be, are so different in the country from what they are here. I am not saying they are not perfectly legitimate, I am only saying there may be grave differences, and if this proposal be adopted, whatever the Royal Institute may wish, it will have twenty members who may be taking—and properly taking—an absolutely opposed view to the rest of the Council. And when you come to think that those representative members are largely elected by gentlemen who are not members of this Institute, and have no interest in it in the sense of proprietorship, it is a very grave and serious change. So long as this Institute knows what it is doing, I would sit down with the greatest respect, and take a back seat, if I may use the expression, on this subject; but I do feel that members should not vote for this very innocent-looking change, which is a radical change in the whole government of this Institute—it is so absolutely a radical change that I hope the Council will pause—and if it is necessary, I would move that the subject be referred back to the Council for re-consideration, because there is no great hurry—after to-day there can be no election until next May, and therefore there can be no hurry. I simply ask that legislation should not be done in a great hurry like this, because if these words are altered, By-law 30 must be altered in many particulars. It is not sufficient merely to cut out certain words; the By-law must be altered verbally throughout to make it in accordance with the new scheme. If there is no limit to the Council, there is no question of electing these members at all, and you may just as well omit their names from the voting-list. Therefore the whole of that By-law must be altered from beginning to end. I hope the Council will pause. I say, with no disrespect and with no unkindly feeling, it is an unbusinesslike proceeding; generous it may be, but it is entirely unprecedented. I should say that it

is not only generous, it is heroic that we should let those who are not members of the Institute elect its governing body.

Mr. RALPH NEVILL [*F.*].—Sir, I think very much as Mr. Hall does, and I should like to say, I feel, as he feels, very strongly that it is really an heroic measure. In the first place, I think there is always the greatest objection to tinkering with a constitution. The moment it happens in a Society that somebody is blackballed, somebody says, "We must have an alteration in the mode "of election;" they alter it, and they find men are still blackballed, and then they want to go back again. I will second the amendment proposed by Mr. Hall. It seems to me that the only difficulty in this case has arisen from the carelessness of the members who vote,—who, instead of adopting what I should say was the straightforward and common-sense way of striking out those Presidents who served last year, and putting in new Presidents, follow some little whim of their own. The remedy lies in our own hands, and especially in the hands of members of country Societies, because if they draw themselves together, as I should hope they would, it is quite easy for them to say "Now, we agree to take it "in turn which of us goes up for this, and send "up a list to the Council of the people that we "think should be elected." It lies in their hands entirely. I do not think any Society can possibly refuse to join in a movement of that sort which is so obviously fair and straightforward; but I think a danger has been unforeseen by the Council, because they say that these Presidents will not come up to vote, and that, as a matter of fact, they do not come up to the Meetings. Well, that is perfectly true, but surely it must be obvious that if any great burning question comes up they will all come to London. Undoubtedly, as Mr. Hall has shadowed forth, there are some very burning questions between provincial architects and London architects; and it may very possibly happen some day at the Council you will find yourselves confronted by a solid phalanx of twenty-one members from the country, who have all come up to vote. It might be a very serious matter, and might upset the intentions of this Institute. You cannot possibly reckon that they would not all come up at once, but I venture to prophesy it is perfectly certain that, some day or another, they will all come up at once, without the slightest doubt. With that danger in view, I am not prepared to hand over the affairs of this Institute to those who are *ex-officio* members in that way. I object most strongly. They were put on, not so much that they might govern the body, but that they might be able to come up and present their views; it was certainly not intended to put the power of administering, as Mr. Hall has pointed out, the finances of this Institute into their hands, which would be a very serious matter. It was not intended to give them power to administer at all, and I venture to suggest that the easiest way would be to refer it again to the Council for further consideration, and see if they cannot develop some scheme by which these Societies can settle amongst themselves which Presidents they will send up—in other words, establish a rota.

Mr. LACY W. RIDGE [*F.*].—I should like, Sir, to assure Mr. Hall he is quite incorrect in supposing the view he has put forward has not been considered. The moment this proposal was made, I also, with a reminiscence of the By-law, did, in the short and colloquial manner in which we talk matters over before the Council, put forward the main propositions that Mr. Hall has put before us this evening, and the reply which was given, and the reply which appealed to me as a practical man, was so overwhelming that I withdrew all opposition to this proposal; and I hope the Meeting will agree with the Council, and will not pay too much attention to very beautiful theoretical objections. The fact is that it is a rare thing to get one of these country members here at all; and the main object, I take it, of this proposition is that there may be direct communication between the Council of the Institute and every Allied Society, so that every Allied Society may, in the person of its President, get the notices of the Council Meetings with its agenda, and may know what is going on, and that the Council may have the means of communicating confidentially, through their Presidents, with these Allied Societies. That is the practical reason for this step, which commended itself to the whole of the Council, and I hope that the Meeting will take the same view.

Mr. BERESFORD PITE [*A.*].—Sir, I rise with considerable diffidence, and I will place myself in order by supporting the amendment that the matter be referred back, in the hope that a somewhat more satisfactory answer may be given to the very careful statement that Mr. Hall has placed before the members. I do feel, Sir, that the members of the Institute owe a very great debt to Mr. Hall for the constant attention he shows to these technicalities, and I am sure that the Council will not be slow to recognise, this evening, the very important points that he has raised. I should be glad to know if this is a matter on which the Council have consulted their solicitor. They have consulted their solicitor on other important matters on which the members have been informed, and I should be glad to know that they have taken, or will at all events be willing to take, the opinion of their solicitor on the constitutional question. But Mr. Hall has given a very pleasant description of a very happy country Society already in alliance with this august body, possessing three members of the Institute within its ranks, one of those members already President, and two others prepared to take his place; a happy family of three who would continually elect themselves members of this Council. I think that this is just the touch of the ridiculous which is wanted to give a contrast to the sublimity of the noble, generous, and heroic proposals that have been made from the Chair. The suggestion I was going to make was that if the Council think it necessary to insist—and whatever the Council insist upon I am sure the members will candidly and entirely support them in—if the Council insist that it is necessary to

have all the Presidents as *ex-officio* members of the Council, I would suggest that they be deprived of the power of voting in the Council; that they be invited to attend for the purpose of aiding, with their experience and with their local views, the Council in their decisions, but that they be not given the power of voting on the Council's decisions. As members of the Institute, they will have the same power as other members of voting when the Council's decisions come before the General Meeting for confirmation; and I think if the Council have the added advantage of their presence in the council chamber it will be quite sufficient, because it must be obvious, I think, to the members here that the dealing with the funds of this Society cannot be delegated to the elected of country Societies. One other question arises in my mind. My father and his partner were formerly members of this Institute many years ago, and retired. On one occasion a very important question as to quantities was raised. I began my professional career in a country office, under the direction of my father and his partner at that time, and I am perfectly conscious of the fact that at that time the country practice and country opinion on the question of architects and quantities were very different from the practice in London and the habit of thought that governs everything upon that subject in the minds of this Institute and its Council. Now, are the Council prepared to admit 20—or 25 Presidents, perhaps, in the future—of provincial Societies into the Institute? I do hope, in the face of the difficulties that have been suggested, the Council will see their way to retire from the position in which they have placed themselves.

Mr. JOHN SLATER [*F.*].—Mr. President, I certainly entirely endorse what has been said by the last speaker as to the value to the Institute and to the Council of Mr. Hall's work and observations which he very frequently makes in this room. I am inclined to think that he is sometimes a little too technical, but it is, undoubtedly, right that we should always have before us the possible consequences of our action. Mr. Hall has given as his objections to this scheme: first, that it is unconstitutional; secondly, that it is objectionable; and thirdly, that it is unnecessary. With regard to the constitutional part, it seemed to me that he laid the greatest stress upon the fact that if the whole of the Presidents of Allied Societies were nominated and could be chosen as members of the Council, there would be no election. That seems to me to imply on the present occasion, also, there is no election of the President and the Honorary Secretary because there is only one name in each case. The words of the 14th Section of the Charter are:—"There shall always be a Council of the "Royal Institute, which Council shall consist of the "President, the Vice-Presidents, the one or more "Honorary Secretaries, and of other members to "be elected"—and then it goes on—"in such "manner and at such times as By-laws may "from time to time prescribe." Surely, Sir, to be elected applies both to the President and to the Vice-President and to the Honorary Secretary, and it is futile to say that this "to be elected" applies to the members of the Council, and does not apply to the Presidents of Allied Societies if we elect every one of them. We have heard from Mr. Hall and from Mr. Nevill and from Mr. Pite the objections to electing the whole of these members. We have not heard a single word as to the objection which now exists when you can only choose a certain number of Presidents of Allied Societies, and of the difficulties which exist in deciding which of them should be elected. That is a point which has been forcibly pressed on the notice of the Council. At Liverpool, where I attended, the provincial members present were unanimous in saying that there was a considerable amount of difficulty; that it was an invidious question to decide who should be elected. I have not the remotest idea what the result of this election, which will be announced to-night, is; but I shall be very much surprised indeed if you do not find that the votes cast for the Presidents of Allied Societies are exceedingly few, and far less than those cast for the other members—for the simple reason that the members do not know whom to choose. It has been stated that we may have the whole of these Presidents coming up and voting against the other members of the Council. But are we to suppose that the same views prevail in Dundee, in Liverpool, in Manchester, in Bristol, and in Exeter? I can only assure you, from the experience I have had of the provincial Societies, that there is just as much difference of opinion between Liverpool and Exeter men, between Dundee and Bristol men, as there is between the provincial men and the London men; and although I quite admit that, theoretically, Mr. Hall may be perfectly right, that there is a possibility of their all being united, yet the possibility is an extremely remote one. I commenced by saying that I cannot see that there is anything unconstitutional in it. The words of the By-law which have to be altered are, "shall consist of not more than thirty-six mem-"bers." If the By-law meant to limit the Presidents, it ought to have said that there were only to be nine of them. It does not say so at all. It only says that the Council are to consist of thirty-six members. We have only to deal with what we find in the By-law, and I say most emphatically that there is nothing in it, except the limitation in the number of members to thirty-six, to prevent our electing the President of every Allied Society. The reason why this proposal has been brought forward at the present time is that we have to go to the Privy Council on other matters. I think it was on your suggestion, Sir, it was decided that at the same time we should make application with regard to this alteration in the number of the Council. It is a very small alteration. It simply comes to this: Cannot the Institute take the risk of what it really does bring with it? For my part, having had a great deal to do in the last year or two with provincial Societies, I have not the very slightest possible fear of their all combining together to upset the deliberate opinions of the London members of the Council; and I do

feel very strongly the invidiousness of choosing the members of the provincial Societies who are to sit on our Council. We are obliged to knock out the Presidents of Societies who are just as numerous, just as powerful, just as worthy to sit on your Council as those whom we select; and it is because I feel the invidiousness of that position, because I feel that a great number of the members of the Council must have felt it also, that I support heartily the motion which the Council have made; and I feel very confident indeed that, if we carry that motion, we shall never regret it.

PROFESSOR KERR [*F.*].—Sir, we are all of one mind upon the principal question—that the Allied Societies, if the system of alliance is to be carried out successfully, should be well represented in this building There is, therefore, no difference in radical principle, but I am bound to say that the impression Mr. Hall has made on my mind is that there seems to be great difficulty as to how it should be done; and if there is no hurry, I do not see why the Council should not take a little more time, and we trust to them to find out the proper plan. It would never do to force upon the body at large a reconstructive principle of this kind which is so very earnestly opposed, and opposed on what may be called political grounds—not upon grounds of sentiment. We all agree together, I suppose we may say, on the sentimental question; but how it is best to be done so as to satisfy everybody, and do no one any harm, is a question which you gentlemen on the Council must solve. You must face it. We trust to you; you must do it, that is all there is about it. It is a matter of detail; and I think, from my little experience of Societies generally, that in the first place my friend Mr. Pite's proposal to constitute all the provincial Presidents honorary members would not work. They would kick against it and protest against it from the beginning. I think, if Mr. Slater will reconsider the matter, he will come to the conclusion that it is not at all unlikely that a combination may be formed among the provincial men—members of the Council—if they find themselves sufficiently strong in numbers upon some vital questions of difference, such as this registration which we are going to discuss to-night—or upon a question of quantities, which, by the way, I hope is pretty well settled. But there is still a great difference between the country practitioner in his practice and the London practitioner in his; and I cannot help thinking that, if you put twenty country members on the Council, it is not unlikely that they will all come up together on some vital question, and then it would put other gentlemen in a very awkward position. Then as to the introduction of the principle of voting by proxy, if Mr. Hall is right—I suppose he is, for he is generally right upon these subjects—the Council have already power of determining that the vote shall take place by proxy. Of course I am speaking subject to correction. If that is so, these gentlemen would not be at the trouble to vote by proxy, but they would simply have a regulation passed in some weak moment by the Council at large, that they should be at liberty to vote in writing; and on the whole, I think it would be most dangerous towards the body at large. If the gentlemen of the Council, who are much interested in this matter, would just make up their minds that it is a very difficult question they have to solve, and that it requires a little more time to solve it, that would be the best course.

THE PRESIDENT.—I need scarcely say, Gentlemen, that the last thing which the Council have in view is to do anything unconstitutional. Mr. Hall has raised three objections to this proposal—that it is unconstitutional, that it is objectionable, and that it is unnecessary. I do not agree with him that it is objectionable. I think it is a very desirable thing to do. Nor do I agree that it is unnecessary. But I am bound to say that Mr. Hall has raised a doubt in my mind as to the constitutional question, whether every member of the Council must not be subjected to election. Mr. Hall was kind enough to write to me on the subject beforehand, and I was rude enough to tell him frankly that his arguments did not affect my judgment. I hope I did so courteously. [MR. HALL.—Certainly.] But I say with equal frankness now that he has, rightly or wrongly, influenced my judgment to this extent, that he may possibly be right in regard to the constitutional question. It has been said that the matter does not press; but as we have to go to the Privy Council respecting other By-laws the alteration of which has been already passed by the Institute, our motive was to save going another time. But if the Institute feels that there is any real constitutional doubt as to the present proposal being right, I for one am quite willing to reconsider the matter, though I do not know if my colleagues are of the same opinion.

MR. ARTHUR CATES [*F.*].—I think, Sir, it is incumbent upon me to say that I entirely agree with what you have just now expressed, and I may take the opportunity of saying that, personally, I thank Mr. Hall very much for the most able manner in which he has put the constitutional question before us. There is very much he has said with which I do not agree; but his arguments have been so forcible, that I think it would be the proper course for us to reconsider the question, and to see, by the light of the observations which he and others have made, whether the thing we desire to do may not be done in some form, perhaps better, which would give us all that we desire, and give us all that the Allied Societies should have, and at the same time avoid the grave constitutional question which he has raised.

Street Improvements in London.—Mr. Arthur Cawston [*A.*], who recently read a Paper before the Institute, which was published in full at p. 159 *ante*, on the "Advantages of Adopting a General "Scheme in making Improvements to London "Streets," has written a book which contains maps and sketches illustrating the principles on which the scheme has been prepared, and which will be published about the end of the month by Mr. Stanford.

REVIEWS. X.

(23.)

THE EVOLUTION OF DECORATIVE ART.

The Birth and Development of Ornament. By F. Edward Hulme, F.L.S., F.S.A. [*Swan Sonnenschein & Co., 6, White Hart Street, London, E.C.*]

The Evolution of Decorative Art. An essay upon its Origin and Development as illustrated by the Art of modern races of mankind. By Henry Balfour, M.A., F.Z.S. [*Percival & Co., 34, King Street, Covent Garden, W.C.*]

Art pure and simple—"Fine Art," as Mr. Hulme calls it—Art for itself, apart from the adornment of a particular object, is an abstraction, and, like all abstractions, is outside the visual range of a world which is still in its childhood. Decorative Art, on the other hand, whatever the exact motive may be which prompts the savage to carve a reindeer on his dagger handle, is almost an instinct with the young intelligence. It is true that, in all likelihood, the carved figure is regarded primarily as a fetish; but, even then, the superstition carries the love of ornament so closely with it that the two are practically indivisible.

Mr. Hulme is not wrong when he says it is a mistake to regard Decorative as being necessarily on a lower level than Fine Art. The trammels which confine it are not a badge of servitude: Poetry, too, moves in the silken chain of metre; Prose is but a shadow of itself unless it conform to the unwritten laws of rhythm—but prose and verse are not therefore inferior to irresponsible, unfettered speech. We may even go a step further, and say that Decorative Art, at the highest, appeals with greater exclusiveness to the intellect than her more brilliant and more vivacious sister, and that when the intellectual is sacrificed to the sensuous, as it is in much of the French monumental sculpture of the day, the true characteristics of the art are exchanged for something less worthy as well as less appropriate.

There seems a little confusion in Mr. Hulme's mind as to the essential differences between the two forms. "Decorative Art and Fine Art," he says, "merge imperceptibly into each other, and "the same thing may receive one or the other "name according to circumstances. If, for "example, we see a group of lilies painted on "canvas, put into a gold frame and hung upon "the wall, we call the result a picture, an example "of Fine Art, the work of an artist; but if the "same flowers, equally well painted, are placed "in the panel of a door, the result is a decorative "design." A more hopeless misconception of the whole matter than this it would be difficult to imagine.

The titles of the two books under notice are, to all intents and purposes, identical; but it can hardly be said that the contents of Mr. Hulme's industrious volume quite bear out the promise of the title-page. A succinct account of the leading features of the best-known schools of art it may be, but it is quite devoid of the philosophic spirit and systematic arrangement which mark Mr. Balfour's unassuming little work; nor can we recognise in much of the art with which it is concerned anything more than a remote connection with "ornament" proper.

In dealing with a structure the foundations of which have long ago crumbled into dust, there are two possible courses: one, to draw on the inner consciousness; the other—and it is this which Mr. Balfour adopts—to argue by analogy, if it is obtainable. Now, in the region of Decorative Art, the analogy is to our hands. There are still peoples towards whom the winds which carry far and wide the spores of ideas no less than those of a distant flora seem never to have set, whose seas have never known those bridges, have never borne those floating islands which have made stepping-stones for animal life from continent to continent. There have been races in the immediate past, there are some even now, who may be called absolutely primitive, whose intellectual fires have been smouldering for age upon age, so that the nineteenth century finds them no further advanced than the almost fabulous workers of palæolithic times. The influences which are at work before our very eyes shaping and modifying everything they produce, are the influences under which, in richer soils and kindlier conditions, the tiny seed has already been reproduced in generation after generation of forest growth. They are our "open sesame," our password to the secrets of unremembered ages.

In this life-history of ornament, speaking briefly, two main propositions may be laid down: (1) That realistic representation preceded conventional; and (2) that working in the round led the way to modelling in low relief or simple delineation in the flat. The earlier stage roughly marks palæolithic, the later neolithic, times. Nor is this to be wondered at. The first is actual portraiture; it makes the smallest possible demands on the powers of generalisation. As you may assume, if you like, that in the beginnings of speech every name was a proper name, so you may say that in art everything has been evolved from portraiture. In both cases the particular is a stepping-stone to the general. It argues some considerable degree of intelligence to grasp the form, as of manual skill to reproduce it with the truth and reality which mark many of the palæolithic examples; but we must not be surprised if we subsequently find ourselves face to face next with a seemingly retrograde movement, or wonder that art suffered when realism was replaced by convention. It was so, but the change none the less meant intellectual growth; if there was a stepping-back in actual technical skill, it was to leap the better. But almost enough has been said. How often Nature was laid under contribution for motives in design; how persistently features survived when they had become optional, because generations back they had been obligatory; how inextricably the conscious and the unconscious were mixed up in the process of evolving the perfect form; how the potter and the decorator were led to simulate basket-work, the impressions of withies and swathings, and to perpetuate forms the meaning of

which was quite hidden from them; how the human face and figure—the foundation for a large proportion of the designs in every material—was gradually lopped of a limb, robbed of a feature, halved, doubled, or turned upside down, till none but the trained eye could follow it: this and much more will be found, put in few words, in Mr. Balfour's book.

How far the fondness for ornament, how far the love of symbolism, how far pure, unreflecting habit was at the bottom of all this, who shall say? Let us, however, take one common form of decoration, and consider for a moment, with Mr. Hulme, what the motive was in the ubiquitous inscriptions of Egypt. Was it in any degree decorative in principle, or was it not simply didactic in its essence and decorative only by accident? We do not regard inscriptions in familiar, straightforward lettering as being decorative—primarily at least—and it is possible that the force with which hieroglyphics appeal to us in this sense may vary inversely with our understanding of them.

It may be that primeval man carved his reindeer handle simply and solely as a prophylactic against the dangers of the chase: we know how the representations of the human figure have in comparatively recent times had no motive but a superstitious one; if waxen images were made to be pricked with pins, or subjected to spells, in the Middle Ages, how many reasons may there not be of an analogous character to explain the industry of prehistoric workers in ivory and stone?

Mr. Balfour confines himself to expounding his subject-matter as luminously as he can, but Mr. Hulme's book is unfortunately at once increased in bulk and made less valuable by a fatal tendency to general reflections, and a fondness for tendering scraps of advice—addressed, presumably, to art-workers in general—which are for the most part so superficial in character as to leave one not quite convinced of his fitness for the post of Mentor. Most people will hesitate to go for instruction to a teacher who is bored by the monotony of Greek art, who still smiles at every anachronism in mediæval painting and sculpture (How his cheeks must ache over Shakespeare!), who speaks of linen-panelling as a "monotonous array of brown "towels," who informs us that the Corinthian Order originated in Greece, and thinks it worth while to say that the naturalistic designer should have a good working knowledge of plant structure, without apparently being aware that the conventional designer should be similarly equipped. Let us hear him in his own words, however, on the subject of modern inscriptions: "The cha- "racters employed, we need scarcely point out, "should be suitable in style to the position in "which they are to be placed. Thus an inscrip- "tion in Roman letters in a design permeated with "mediæval feeling, or a legend in fourteenth "century characters across the classic façade of "the British Museum, would be equally open to "adverse criticism. A very happy and appro- "priate inscription may be seen in the classic "quotation in praise of the virtues of water, duly "inscribed in Greek characters, on the Corinthian "portico of the pump-room at Bath." There are certain contrasts, Mr. Stevenson has said, which are too obvious for the purposes of art, and, similarly, there are certain reflections which are too trite for the purposes of Literature. It is a pity that a book which has its merits should be weighed down by these highly unnecessary defects.

ARTHUR EDMUND STREET.

(24.)

PUBLIC WORKS DEPARTMENT, N.S.W.

Annual Statement of Works carried out by Public Works Department, New South Wales, during the year 1891. *Fo. Sydney*, 1892. [*Legislative Assembly, New South Wales. Charles Potter, Government Printer, Sydney*]

The annual statement of the works carried out by the Public Works Department of New South Wales is instructive in showing not only the large amount of work and expenditure undertaken by the Department, but also the varied and substantial character of the buildings and the multifarious duties of the officials engaged. Thus we find railways, tramways, harbours, river works, waterworks, public buildings, roads, bridges, and sewerage all comprised in the year's work, while the gross expenditure of the year 1891 amounted to £3,125,616. 19*s.* 1*d.* The statement is made more interesting by the publication with it of a series of photographs, showing some of the principal works, some of which for solidity and handsome appearance compare favourably with works in the old country. The returns and reports of the district engineers furnish evidence in detail of the great amount of work carried on by the department, and the care bestowed upon all the branches.

Sydney claims to have one of the largest single graving-docks in the world, and, although the expenses of maintaining the docks exceed the actual amount of dues received, there can be no doubt that possession of docks of the size raises Sydney to the position of a first-class port, and constitutes a safeguard in case of naval attack.

With regard to buildings, it seems that the Government architect has no less than 856 public buildings under his professional supervision; but the amount allowed for keeping them all in proper repair is said to be inadequate. The complaint is a serious one, as the life of a building subject to the climatic influences of New South Wales is considered a comparatively short one, and outside repairs and protection from the white ant must be systematically undertaken.

The roads, bridges, and sewerage also absorb a large amount of work, which is rendered more arduous by excessive rainfall and repeated floods, the average rainfall at Sydney being 50 inches.

In this, as in other parts of the colonies, there seems to be an abundance of work all the year round both for engineers and architects; so that it should not be difficult for a well-trained young man with good introductions and recommendation to find employment. The work now done gives every opportunity for exercising ingenuity and skill.—RICHARD F. GRANTHAM.

No. 9, Conduit Street, Hanover Square, London, W.

THE CATHEDRAL OF PALMA, MAJORCA: ITS ORIGIN AND DEVELOPMENT, WITH SOME NOTES OF MINOR BUILDINGS IN ITS NEIGHBOURHOOD.

By Colonel Lenox Prendergast [*H.A.*].

A Paper read before a General Meeting of the Institute, Monday, 13th February* 1893.

Mr. J. Macvicar Anderson, *President*, in the Chair.

Mr. President and Gentlemen,—

I PROPOSE to draw the attention of the Royal Institute to a building of singular interest, the Cathedral Church of the Island of Majorca, off the mainland of Spain, in the midst of the Mediterranean Sea.

The difficulty I experienced in finding any trustworthy architectural information concerning it, in our own language, has led me to think that it might be acceptable to any of our members who may turn their steps in this direction, to have at any rate at their command the dates on which many of the different parts of this vast church were undertaken by those who built them. Before, however, entering upon the technical part of the subject, I should like to invite consideration of the surrounding circumstances which originally led to the erection of a building which, I will freely confess, has for me the greatest fascination.

Its situation alone is beautiful beyond compare. As you enter the bay, passing under the walls of the mediæval castle of Bellver, and anchor in the blue waters of the Mediterranean, almost under the succession of terraces on which stands the seat of government, dating from Moorish times, there rises, immediately beyond, a gigantic church, flanked on either side by palm trees, seemingly straight out of the sea, which only does not wash its walls because massive terraces of great antiquity stand guard over their foundations.

This spot was the ancient stronghold of the Moors, who, for three or four hundred years, held possession of the land; and on this, the site of their greatest mosque, stands now the Christian church.

How comes it that a building in the choicest style of mediæval architecture should have sprung, Minerva-like, in full-armed panoply, with no antecedents, to occupy this strange, this choice position? It was raised in an outburst of gratitude by a Christian people, led by a Christian king, to commemorate their deliverance from the hated Moslem yoke; and for this reason, unlike most of the cathedrals of the world which have had small beginnings and an ancient history, it presents itself to view exactly as its founder, Don Jayme of Aragon, designed it in the year 1232.

Who, then, was this Don Jayme of Aragon, known as "the Conqueror," to whom we are indebted for this great church? It must have been no common man

* An abstract of this Paper with the Discussion thereon appears on pp. 188–191 *ante*.

whose mind was large enough to initiate so vast a design at a moment when wars, incessant wars, might have been an excuse to leave art alone. His reign extended from A.D. 1213 to 1276, and his conquest of the island took place in 1230. Ticknor, in his *History of Spanish Literature*, says of him that he loved letters, and left behind him a large prose work; and he speaks of him as a man of culture. The work referred to is a chronicle of the events of his reign, and includes that very period that interests us on the present occasion—the rescue of Majorca from the Moors in 1230.

As to the Moors, their progress in refinement was hardly less brilliant and rapid than their progress in empire. The public schools and libraries of the Spanish Arabs were resorted to, not only by those of their own faith at home and in the East, but by Christians from different parts of Europe. In the midst of this flourishing empire no inconsiderable number of native Christians dwelt among their conquerors; and though to a certain degree they were preserved as a separate people, and, considering their peculiar position, maintained, more than could be readily believed, their religious loyalty, still the influence of a powerful and splendid empire, and of a population every way more prosperous and refined than themselves, was constantly pressing upon them, The inevitable result was that, in the course of ages, they gradually yielded something of their national character. They came, at last, to wear the Moorish dress, remains of which may be seen sometimes in Palma, but quite commonly at Alcudia and Pollenza, where the men walk about in wide Moorish breeches, bufas, with an open-breasted silk waistcoat, &c.: in short, they were so mingled with their conquerors and masters that, in process of time, they could be distinguished from the Arabs amidst whom they lived by little save their faith.

Except a very small second-class building of brick and plaster known as the Moorish bath, I failed to discover any traces left at Palma of distinct Moorish architecture or handicraft. That so little remains of so highly gifted and cultured a people, who held sway for several hundred years in the island, is strange indeed. Their gigantic works of irrigation alone, the miles of concrete conduits which convey water in every direction, speak plainly enough as to their capability for production; but of any traces of their artistic works there does not seem now to be any survival in the island. I am inclined, therefore, to think that the carved and coloured work, sometimes assigned to the Moslem period, should find its origin in the period subsequent to the conquest in 1230; and that the Moorish flavour which it undoubtedly possesses is attributable to the mixture of races, which certainly followed the expulsion of the Arab government from the island.

That the architectural works undertaken immediately on the conquest of the island by Don Jayme of Aragon, for the re-establishment of Christianity, owe much of their delicacy and grace to the refinement that unquestionably existed during the Arab occupation, there can be no doubt. There are some who will deny to the Moors the qualities now attributed to them; but none who care to trace the history of the advance of the Saracens from their Eastern home can fail to credit them with civilisation, of a sort, and with that delicate appreciation of ornamental art, the command of which they had brought with them from the East. Let us glance for a moment at their progress Westwards. In our insular security we are apt to underrate the agony of fear with which the advance of the Arab hordes towards Western Europe was regarded by those who stood in their way; but if we desire to realise at all the feelings of the Majorcans when their hated yoke was removed, let us consider how near a danger it was even a good deal further West. Had it not been for Charles Martel in 732, Mr. Stanley Lane Poole says, "fair France might have been their prey from Calais to Marseilles. "An issue momentous for Europe was to be decided, and the conflict that ensued has "rightly been numbered among the fifteen decisive battles of the World. The question "to be judged by force of arms, was whether Europe was to be Christian or Moham-"medan; whether the future Notre-Dame was to be a church or a mosque; perhaps

"even whether St. Paul's should echo the chant of the Agnus Dei or the muttered "prayers of Islam. Had not the Saracens been checked at Tours, there is no reason "to suppose that they would have stopped at the English Channel."

This position, then, had been that of the Majorcans for several hundred years, and their gratitude to Heaven knew no bounds at the deliverance which came to them at the re-conquest by the King of Aragon, a Christian! It found expression by their erecting the Cathedral Church of Palma.

The construction of this great edifice, undertaken and carried on for a series of years by workmen and designers who had come in contact with a civilisation of the character we have described, was the means of giving to the Majorcan people an appreciation of good work which has served them in good stead at every stage in the progress of this great building. Let us hope that this good fortune will not desert them now!

At Palma the architect seems not only to have had sufficient individuality to produce works of purer architectural value than those prevalent in Spain, but his proficiency in the art seems to have caused him to be fetched over to Spain to conduct important buildings on the mainland; and I think it may be inferred from this—the work at Palma encourages this view—that his mastery of the art of a purer Gothic style led to his employment as I have mentioned.

Mr. Street, in his *Gothic Architecture in Spain*, says that "In Catalũna, on the "other hand, there was a most marked impulse given by a Mallorcan artist at the "latter part of the fourteenth century; and to the influence of his school we owe "some of, I suppose, the most important mediæval churches to be seen in any part of "Europe;" and, speaking of the typical church of Santa Maria del Mar at Barcelona, of which he writes in terms of the greatest enthusiasm, he adds:—

"This church has its prototype at Palma in Mallorca, and I much regret that I "have never yet been able to visit that island, for, so far as I can learn, it seems that "the mainland owed much to it in the way of architectural development, and that some "of the finest examples of the Catalan style in this age are still to be seen there." According to Mr. Street, Jayme Fabré, a Mallorcan, seems to have been one of the greatest architects of his day. In 1318 he was at work at the convent of San Domingo at Palma, and at the Cathedral of Barcelona in A.D. 1339. He carried on works at *both* places at the same time. Similarly in 1415, Guillelmo Sagrera was acting as architect of the Church of S. John Perpignan, and in 1425 was at work at Palma, and was a long time there.

Let us now ascend the staircase which leads through the terraces from the harbour to the Cathedral. At the head of the staircase we arrive at the open space which divides the Cathedral on our right from the Governor's Palace on the left, which last occupies the spot where stood the Almudayna, the ancient headquarters of the Moors. The foundations are unquestionably of that period, and so for the most part are the walls of the buildings. I could find no traces of Moorish architecture as such in any of the buildings. A doorway, it is true, is pointed out to the stranger as the work of the Moors; and I had a photograph taken of it, which I expect will convince experts that this belongs to a time subsequent to the expulsion of the Moors: in fact, a similar doorway is to be found at Perpignan, a place which was a frequent resort of the kings; and we know that one architect at any rate was at work at both places at the same time.

The west front of the Cathedral faces the entrance of the Palace. The upper portion of this front has only recently been completed, and need not occupy us further than to say that its design might have been worse, and that at a distance it does not jar materially with the rest of the buildings.

Before going round to the north porch to enter the church, let us look back towards the sea. The lovely bay through which we entered the harbour lies spread out before us, and there is nothing now to interrupt the view. For several hundred years the city ramparts stood between the Cathedral and the sea; but now the terraces

LA CIVTAT DE MALLORCA
IGLESIES
MALLORCA CIVITAS olim Palma, cruc
citate fol, aere, salubritate, frugum omnigenarum
copia, situ, Ædificiorum vero pulchritudine spectabi
Maniam, et Propugnaculorum situ, et circumvallatio
dare brium militarium Italicorum cum senuit mu
nitissima, Maiorice Insulæ, atq; olim totius Balea
rici Regni caput, habens Episcopatum sedem. Re
gumq; Senatum, cui Præses, pro Catholico Hispa
niarum Monarcha præst. Sita est in principio pul
ri Climatis, sub elevatione Poli, partium 39. minut 30
et longitudine part. 25. minut. 2. A meridie abluitur
mari sesta navigantium stazione celebri. Ab Antonio
GARAV Presbytero, et Mathematico accuratiss
me delineata, nunc primum lucem videt. ANNO
Dominī. 1644

Fig. 1.– Bird's-eye Plan of the City of Palma, Majorca, dated 1644.

alone intervene. The reduction of an old print of a bird's-eye plan of Palma dated 1644 [fig. 1] shows that this was so, and the dignity of the Church and Palace is immensely enhanced by the removal of these ancient walls.

The great south front [fig. 2] is a marvellous creation; viewed from below, one is at a loss to understand its conception. Built of the excellent stone of Santanny, a quarry in the south of the island, the warm yellow tone gives great character to the

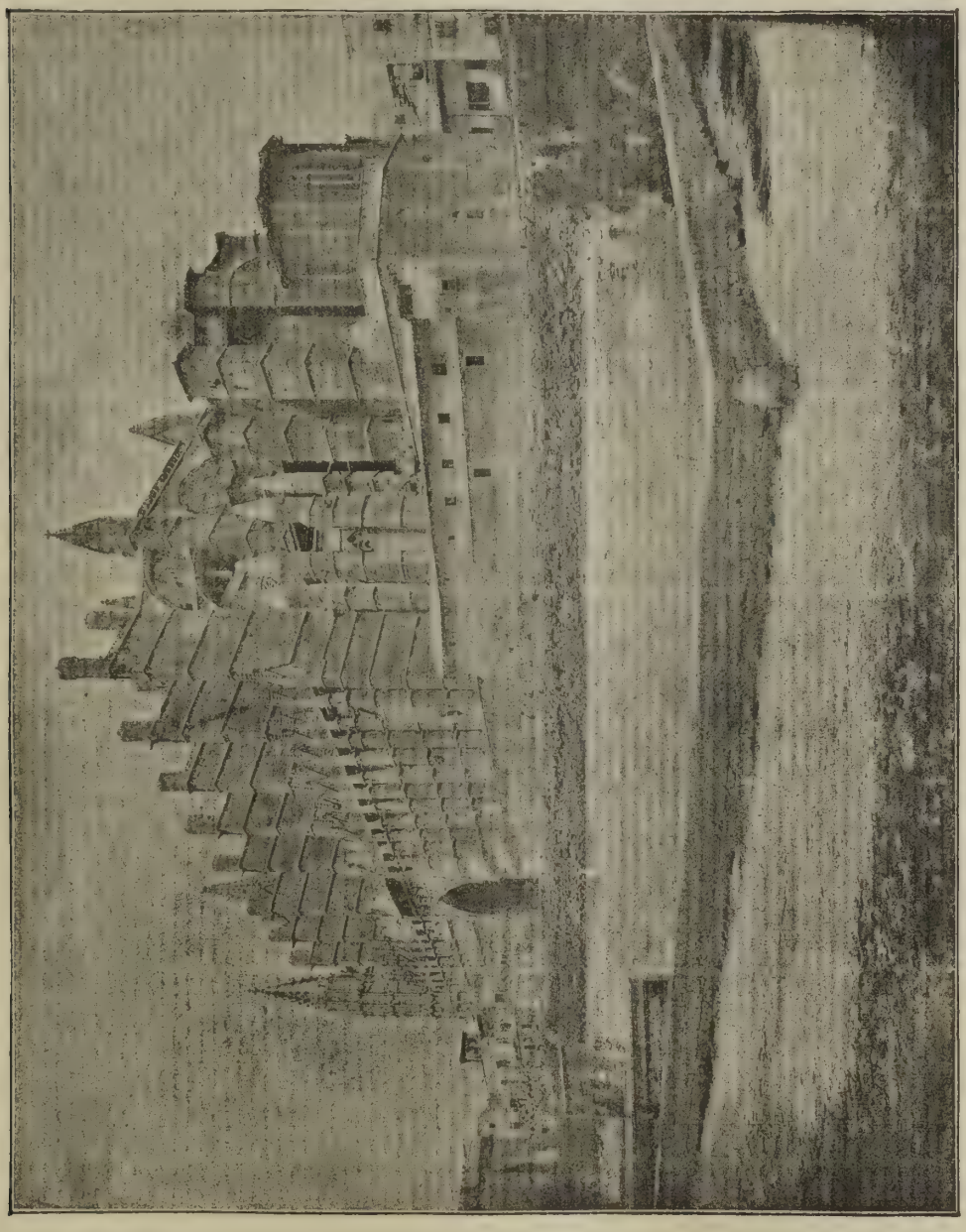

Fig. 2.—Exterior of the Cathedral: South Front on Sea-shore.

work. A series of apsidal chapels resting on a square base occupies the whole length of the nave. Each apse is provided with well-designed two-light mullioned windows, if it be correct to describe as windows interstices which contain no glass; and at the

angle between each window is placed a pinnacled buttress set square, in line with the square base I have alluded to.

The effect of all this is singular in the extreme, and I must confess that I have never seen anything of the kind anywhere else.

Halfway down this wall of chapels is to be found the most elaborate of the two famous porches, the other being situated to the north. They are the work of two brothers of the name of Morell. The elder of the two was an architect of the greatest repute of his time, and the general design is no doubt attributable to him. Unfortunately, however, he died some time after they had been begun, and the Chapter were in the greatest difficulties for means to replace him. We know all this from a contemporary document, in which they explain their desire to obtain the services of the younger brother, whose talents were as great as the original artist. This comes out in a letter from the Chapter of Palma to the Chapter of Gerona in 1394, asking that this man's services might be at their disposal to continue the work of his brother, who had just died; and doubtless the doors as we see them were completed by him. This work is all executed in the Santanny stone to which allusion has been made.

Going round to the north porch, which is the usual entrance from the city, we must pass the great west portal of the Church.

This door is esteemed as a work of considerable importance, though executed in a style wholly different from the other constructional portions of the Church. It was built at the expense of Bishop Vich, at a cost of 15,000 libras. The design is due to one Maestro Antonio Fornari, in the year 1601; he was Maestro Mayor, or architect of the building, at that period.

The recess of this portal is the half of a hexagon, externally. Renaissance work of the richest description, though not altogether pleasing, fills the great arched recess. Figures of the four Doctors of the Church stand in the recess formed by coupled columns on pedestals. The door is divided in the centre by a column, above which is placed a statue of the Blessed Virgin Mary.

We now enter the Church through the north door, which is placed half-way down the Church.

Travellers often complain that at their first visit to St. Peter's at Rome, there arises a feeling of disappointment as to the size of the interior; a feeling the reverse of this is one's experience on entering the Cathedral Church of Palma. I was for some time puzzled to account for this, till one day I determined to step the distance between the pillars of the nave, when I discovered what I think will account for it in some degree.

The Church from this side is entered, owing to the lie of the ground, *down* several steps, which land one just where the constructive choir terminates by its west entrance in the centre of the nave. There is therefore an uninterrupted view across the whole of the Church from the north porch to the great porch on the south, and the enclosing walls of the choir just slightly intervene between the spectator and the range of arches of the south nave (or aisle). On measuring the space between the columns of the arches in front of the north and south porches, I discovered that it was considerably greater in these two cases than existed in the case of the other arches; the eye, therefore, was undergoing an illusion, which, in my opinion, had a good deal to do with the effect to which I have alluded. The actual difference, as between these arches in front of the north and south entrances and the remaining arches, is 10 ft., the former being 34 ft. from base to base, the latter 24 ft.

The position chosen for the building was that of the Almudayna, the great Mosque of the Moors; the easternmost portion of the Cathedral was placed somewhat to the east of the Mosque. It consisted of the Chapel of the Holy Trinity, which, with the Capilla Real or present Sanctuary, was erected as a place of sepulture for the Majorcan Kings. The Chapel of the Holy Trinity stands many feet above the floor of the rest of the

Church. As the building progressed, the Mosque which served as a portion of the Church was gradually removed.

The original design seems to have served each generation as a model for the plan of the building, modified as regards detail, but for the most part adhered to in each century.

There is a bishop's throne occupying the centre of the east wall, above and beyond which rises the Chapel of the Holy Trinity above mentioned, and this arrangement was adhered to till the choir was moved further west to the centre of the nave, in accordance with the usual Spanish arrangement, in 1576. The finest work architecturally is that which was carried out by Bishop Pedro Cima, whose date was 1373; to him the town owes the foundation of the Convent of San Francisco, which, with its remarkable cloister, is one of the chief ornaments of the place. To this period may be assigned the three easternmost bays of the naves. At this time the effect of the interior of the Cathedral must have been singularly fine as a specimen of Gothic architecture and fittings. Some idea of the dignity of the central nave may be estimated by a consideration of the diameter of the rose window situated above the sanctuary arch—it is 54 ft. in diameter, is the design of Maestro Antonio Jover, and the glass was contracted for by a Catalan glass-painter named Juan Jordan. I discovered the exact date of the glass by finding it, with the aid of opera-glasses, inscribed on the work. The first stone of this circular window was blessed in the year 1597, and the glass was contracted for a little before. The contracts are extant.

And this is, perhaps, the place to indicate certain measurements necessary for the due appreciation of what follows. I received them in Spanish measure, "palms," and I give their English equivalent as far as I could get them translated.

The diameter of each column is $7\frac{1}{2}$ palms	= to 4·92 feet diameter
Length of church, 540 palms	= 354·24 feet
Width, 275 palms	= 180·40 feet
Height of central nave, 237 palms	= 155·47 feet
Side nave (or aisles) height, 118 palms	= 77·40 feet.

The building was planned within a year of the conquest of the island from the Moors, which took place in 1230 A.D., and the architect appears to have been a captain of engineers, who, though an architect, accompanied "the Conqueror" Jayme the First in his battles, and directed the siege operations. His name was Maestro Nicholás, whose surname, apparently, was Barbarán.

The question of lighting must now be noticed. To a Spaniard the practice of admitting the sun anywhere, be it into church or house, is not to be entertained for an instant; therefore this would be only idle discussion if the natives took part in it; but, investigating as we are architectural peculiarities, it is desirable to come to some conclusion as to the cause of this strange blocking up of window tracery with stone, to which I called attention in connection with the apsidal chapels of the nave. Standing, as we are supposed to be, inside the church now, on looking up to the clerestory we shall find that precisely the same thing was done to all these windows: they are blocked up. What, then, was the reason of this strange proceeding? The solution that approved itself to my mind was that, owing to the enormous height of this Church, it was found necessary to strengthen the supports, unless they wished to have it about their ears. On the authority of D. Jorge Bosch I give the height as over ten feet higher than Seville Cathedral! We shall see presently that, notwithstanding these precautions, several bays had to be taken down and rebuilt later on. But now for the rose-window—what is the history of its insertion? Remembering the date on which its first stone was blessed, 1597, I think that its insertion became necessary to light the nave after the removal of all remains of the Mosque, which had served its purpose

during the construction of the Church, when it became perfectly clear that the building was insufficiently lighted owing to the blocking of windows originally designed to admit the requisite daylight.

There is, of course, one other solution possible, and it is one of everyday experience in Spain, where the churches for the most are dark, *usque ad absurdum*. The simple truth is, that in Spain they exclude the sun, because where the sun enters in force, overwhelming battalions of flies follow in its wake. I did not believe it at first, but bitter experience later on, in the centre of the island, made me do like the rest and exclude the light; anyhow, the side chapels in this Church are practically unlighted, and, I apprehend, have always been so from the first. Each of the chapels, of course, contains an altar, furnished by the addition of a huge gilded Churrigueresque reredos reaching almost to the roof. As the windows are blocked, this feature is less objectionable than it otherwise would have been; but the great width of these erections necessitates a loss of space, since, as I described just now, these chapels, though starting on a square base, become apsidal higher up; therefore, as the reredos occupies the whole width of the base, to keep it clear of the apsidal portion the whole has to be brought forward further into the Church. A space, therefore, remains unappropriated behind these altar-pieces; and those who visit this Church with any love for the earlier portion of its architectural detail, should take care to look behind one of these altar-screens, for they will find tombs of bishops with carved accessories of an early period well worth searching for.

In the Chapel of St. George, for instance, which is one of the earliest, will be found in the position I have indicated, a most interesting tomb of one of the earlier bishops and a lover of architecture. These chapels bear names by no means at random, and the elucidation of the reason of their dedication leads to most interesting historical and legendary information in connection with the place. This bishop, for instance, whose tomb is found in St. George's Chapel, directed specially that there should he lie and nowhere else, the motive being one of gratitude for the final victory over the Moors, which, as the legend goes, was brought about by the special intervention of St. George. It appears that the final battle which settled the question was gained by the Christian force against overwhelming odds; and so confident had been the Moors of victory, that when their chiefs were brought before Don Jayme, "the Conqueror," they shed tears, crying out that, but for a gallant knight who suddenly appeared against them at the final onslaught, clad in white and riding a white horse with a red cross on his breast, the victory would have been theirs. Then the King knew that the cry of his people "St. George for ever!" at the supreme moment had brought them the victory, and the good bishop thus commemorated the incident a century after the event.

I have said enough to show that it is worth while to search for the tombs, and to learn something of the history of those they represent. The tombs are few in number, none but kings and bishops being permitted to have sepulture within these walls.

I will now ask you to look at the ground plan of the Cathedral, for I propose to describe the manner in which I myself saw the whole Church in use, just as it had been used by those who witnessed the completion of the fabric.

I am led to do this because I have always urged, at our discussions in this place, the necessity of a knowledge of the purposes to which these large ancient buildings were put by those who designed them, if we are not to go altogether astray when called upon either to restore or to reproduce them. In this country we have got so into the habit of seeing the ancient churches put to uses of a very different character from those for which they were designed originally, that we have ceased to see the incongruity of filling spaces intended for processional and casual use with wooden sittings, after the manner of a preaching hall or lecture room.

The church plan [fig. 3] we have now to consider is about as simple as any that could have been devised to cover the vast area included within the walls. Three full-size naves or aisles are placed side by side, the centre one having at its eastern extremity the sanctuary which contains the High Altar, the *raison d'être* of the principal ceremonies; the sanctuary itself is marked off from the nave by what we should call a chancel arch, above which is situated the huge rose-window filled with ancient glass. The chorus cantorum or choir is situated in the nave, two bays westward of the sanctuary arch; this is the usual Spanish arrangement, and, being unfamiliar with its working, I was greatly interested to understand the method of its use.

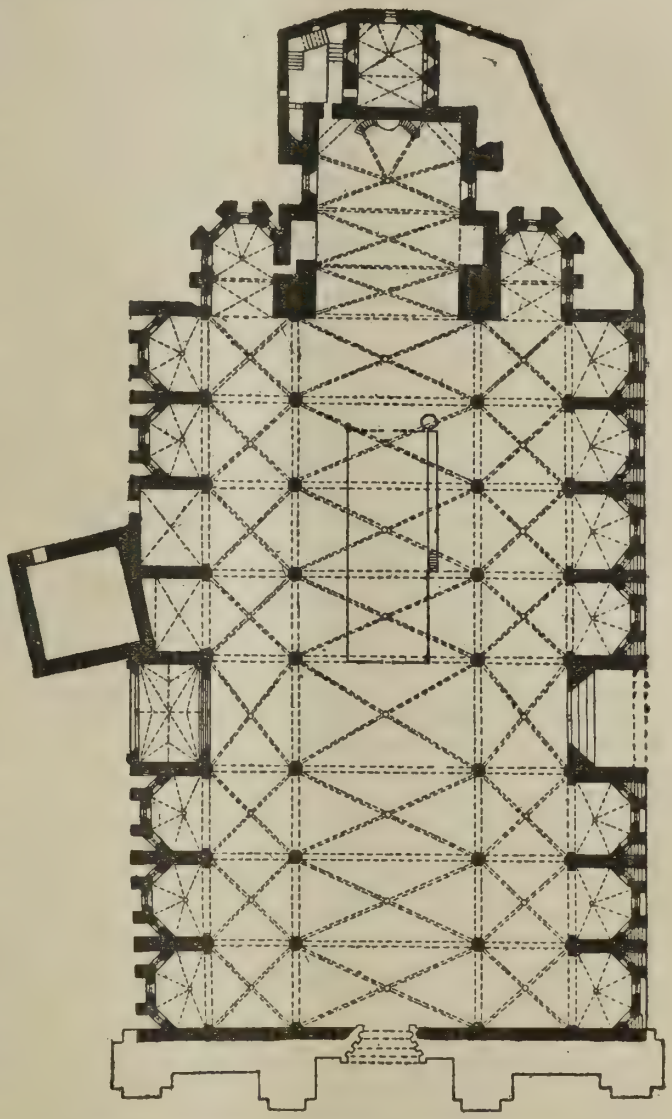

Fig. 3.—Ground Plan of the Cathedral of Palma.
Scale of about 70 feet to one inch.

A gangway railed off by railings or rejas, as they are called in Spain, but of no great width, ensures uninterrupted progress for the canons and others, who frequently pass and repass during the course of the services from the choir to the High Altar.

My arrival at Palma was in the Holy Week, between Palm Sunday and Easter Day; and I had the privilege of attending the lengthened offices which culminate on the latter feast day, and of witnessing what occurred from a spot of considerable vantage, namely, from the huge pulpit or ambo on the Epistle side of the choir. In this ambo takes place the ceremonial reading of the Gospel by the deacon, accompanied by the subdeacon, the acolytes, the thurifer and others; and last, not least, by the bedell with silver staff, dressed in a costume, even to the powdered wig, the exact counterpart of that of our barristers in the Law Courts, the only individual whose adornment was the least out of taste. There was ample room for every one, there was sufficient place for us all, and I could withdraw under cover and not be seen by those kneeling on the floor of the Church. The advantage in my case was that I could look over into the choir, and I could also

see the whole Church from end to end, and realise the use to which every part of it was put, at one and the same time.

There is something about this Spanish arrangement which commends itself to the wants of a variety of service such as takes place at Palma. It was just what was required not only for the Easter ceremonial at the High Altar, but also for the remarkable scene I witnessed on Good Friday. On the latter day a life-size representation of the Crucifixion is placed immediately in front of the sanctuary; and towards the close of the well-known offices which recount the prophecies and other passages of Holy Scripture connected with the solemn commemoration of the day, the figure is ceremonially taken down from the cross, and after being veiled is conveyed on a bier in procession to the sepulchre which had been used on Maundy Thursday. This piece of church furniture it is unnecessary to describe in this place, since so many of the ancient parish churches of England have still *in situ* their Easter sepulchres, often very fine specimens of Gothic architecture. There being no benches in the Church, only a few here and there against the walls, the vast congregation was able to move in order and at once to the chapel where the sepulchre lies. The question of seats is solved in this place by every one bringing with them a little camp-stool which hangs lightly on the arm—the ladies always use them, and it is not etiquette for them to allow the gentlemen who accompany them to carry the camp-stools for them!

What concerns us here is, did the architect who placed the constructive choir where it is and followed the "Spanish arrangement," as it is called, fulfil the requirements of the problem he had to solve, which is, for such an occasion as I have described, to bring the people attending such a dramatic incident as this within reasonable distance of the representation, without excluding those who occupied the choir from being able to take part also? In my opinion these wants were not only perfectly fulfilled for this exceptional day to which I have just directed your attention, but at the more important ceremonies, which take place at the High Altar, the Spanish arrangement gives immense freedom of access to the people; and if once the preaching hall theory is rejected, the arrangement under consideration lends itself admirably to the particular form of worship the architect was called upon to minister to in this place.

With a view to judging how far the original architect, and those who followed in his footsteps, met the requirements of the Church for a great festival celebrated in this remarkable building, let us endeavour to realise the procedure on Easter Day last, when I was present.

From a very early hour in the morning, the chapels, fourteen in number, situated in the north and south walls of the great Church have been occupied, at intervals of half an hour, by the Cathedral clergy in succession, the people in the case of the three westernmost chapels kneeling right across the vast width of the whole church, the chapel situated in the east wall of the south aisle being reserved for the administration of the Holy Communion to the people who successively attend there at intervals of a few minutes.

At half-past nine the great service of the day begins, that which explains to us what was in the mind of the designers of the building.

Exactly at the hour named—for everything here is done to the moment—three perfectly distinct processions begin to get in motion, the clergy in each of them being robed in the richest vestments the sacristy can boast of.

The first procession is that which makes its way, preceded by cross and thurifer, direct to the chapel that has been used as the sepulchre, and where now stands a life-size figure of the Saviour, holding the conventional flag, so constantly seen in the earlier pictures of the great masters. This is now borne by four of the clergy, vested in dalmatics, due west from the aforesaid chapel, and so round the Church. The order of the procession differs from what is so commonly seen, in that instead of those taking part in the procession walking abreast, almost touching each other, they

are divided by nearly the whole width of the aisles they traverse : the cross with its attendant thurifer and acolytes alone occupying the centre of the aisle, and the four deacons with their burden occupying a similar position in the rear.

If one had any doubt as to the use of these gigantic aisles it disappears now. Moreover, the method the architect has adopted of placing the choir or chorus cantorum so that its walls do not touch the columns of the nave, adds a still more pleasing effect on occasions of this kind; for the spaces so provided outside the north and the south walls of the enclosure form practically two additional narrow aisles, thus providing a wanted means for the people to assist at the processions.

Soon after the first procession is got into motion, a second procession starts from the Capilla Mayor, the sanctuary, consisting of clergy vested as before, with accompanying ministers, who bear another figure intended to represent the meeting of the Saviour with His Blessed Mother after the resurrection. The procession moves in a contrary direction to the first-named, which by this time is advancing up the south aisle; and as soon as the meeting is sufficiently demonstrated, it turns round and precedes the first procession, leading the way to the Capilla Mayor, where finally both figures are deposited near the principal Altar of the Church.

As soon as both the aforesaid processions are well on their way, a third procession of the bishop, who is about to celebrate the high mass, emerges from the choir on its road to the High Altar; he is attended by the usual deacon and sub-deacon vested in dalmatics, with other officers, and proceeding in front of both the other processions, there vests according to the ritual prescribed for such occasions.

If what I have been describing is realised by those I am addressing, there can, I think, be little doubt left that the architects who were called upon to provide the means of carrying out such complicated ecclesiastical manœuvres as these understood their business ; and that, apart from all controversy as to the thing done, the mode of executing it is altogether admirable.

Of course I was peculiarly well placed to form a judgment of the *tout ensemble*, owing to the position that I occupied, raised above the walls of the chorus cantorum, and thus able to witness what occurred simultaneously in both aisles of the nave, the chorus cantorum, and the sanctuary.

And now, but for certain accessory circumstances which I am about to detail, I should be content to have left what followed out of reckoning on this occasion; because nowadays the principal cities of Europe, where the festal ceremonies according to the prescribed ritual of the Catholic Church are to be witnessed half a dozen times in the year, are accessible to most Englishmen who travel.

It is a peculiarity of this Palma Church that no sooner does one decide to investigate a particular point suggested within its walls, than instantly something special and apart, something unlike things elsewhere, is immediately discovered.

At the stage we have now reached we are standing in front of the High Altar, and one might reasonably suppose that what ordinarily is found under such circumstances would be all the impressions that the mind would receive at such a moment. On the contrary, we are face to face with, and beyond retreat from, a unique episode of history enacted within these walls, and it affects what the eye sees there to-day. The story must needs be recalled, for it permeates the ecclesiastical " Function " on the threshold of which we have been standing since the bishop's procession arrived at its destination.

Church history records in the course of centuries many instances of grievous schisms, but none affected Europe so deeply as the war which raged between Pope and Antipope in the middle ages. The conflict had lasted half a century or thereabouts, when a canon of Barcelona, one Giles Muñoz, Professor of Canon Law, was elected as Antipope in the place of Benedict XIII. in 1424.

For five years, under the protection of King Alfonso, he reigned; but when that sovereign recognised Martin V., the real Pope, he at his bidding resigned, and the

Pope made him Bishop of Majorca in 1429. He was the last Antipope, as Martin V. closed the schism.

Here then was a bishop in Palma Cathedral, who, having worn the tiara and been accustomed to a certain ceremonial treatment, had to be dealt with by the Roman Pontiff so as not to offend, in matters unimportant, one who had submitted to the Holy See at a critical moment of its history.

The difficulty was solved by permitting a retention on the part of the Bishop of Majorca of much that is associated with the Sovereign Pontiff as regards his ceremonial surroundings.

This will account for the exceptional grandeur of the scene as it presented itself before me on the occasion to which I have referred. Every canon of the Cathedral appears in a dress of red silk, which if not that of actually a cardinal is the nearest approach possible to it; and at the most solemn moment, when the bell rings, they all come up with lighted tapers in their hands, and when the action is completed extinguish them ceremonially, and at one time.

During the progress of the "Function" others with long silver staves are perpetually passing and repassing from the choir to the sanctuary: in short, carrying out an exceptionally elaborate ceremonial, not seen, as far as I know, out of Rome, and not even there at present, owing to the suppression of Papal functions in public. I have said enough to prove special and unique interest for what goes on here at the present moment; so I need not say more, except that there is a quantity of detail of great interest connected with this subject, and that I believe minute instructions are extant for the conduct of divine service in this Church, under the special circumstances I have just described.

Since every writer on the duties of architects that I am familiar with seems to expect an architect to have studied everything under the sun, I do not feel to be much out of place in calling their attention on this occasion to such matters, archæological, ecclesiological, and historical, as force themselves into notice when so interesting a place as this is under discussion.

In 1346 was consecrated the High Altar of the Cathedral by the seventh Bishop of Mallorca. The Altar itself is of marble, and above it was designed in sculpture a singularly fine "retablo,"—length, 22 feet 7½ inches; height, 26 feet 1 inch; height of figures, 7 feet 10¼ inches—consisting of a centre figure of the Madonna and Child, in accordance with the vow of the founder, Jayme the First, "the Conqueror," and several niches on each side containing figures of saints all admirably carved in wood and gilt. At present, though these fittings still exist, safe and sound, they are screened from view by a huge erection of a subsequent altar-piece, which was erected in 1746. On festive occasions, when the walls are hung with the tapestries which the Chapter have recently had cleaned at a cost of £600, and the riches of the treasury are brought out, the effect is sumptuous enough; but, for all that, the original retablo is more in keeping, and can be seen now just turned round behind the present reredos. In the treasury are several *reliquaries*, of the best period of the architecture of the Church, and to these may be added articles of altar furniture of great magnificence of a later period. On either side of the Altar stand two famous solid silver lofty candelabra—height, 7 feet 3 inches—valued at some £6,000—unique of their kind and of very fine workmanship. They are each for seven lights, supported by figures well modelled and exquisitely chased. They were made by Juan Matous, the Catalan silversmith, and Juan Roig, the sculptor of Barcelona. Matous belonged to Tarragona, and was at work in 1693. Eleven years and three months were employed in making these rich specimens of the silversmith's art. As on the high festival at which we have been assisting, the bulk of the contents of the treasury are placed on the High Altar during the afternoon, and as no restriction whatever is imposed as to going right on to the Altar platform on this occasion, I think that this is the place to direct attention to several specimens of mediæval

metal-work in which are enshrined relics of great antiquity and considerable interest. I can only mention a few specimens, with the approximate date of each.

1. Reliquary, fifteenth century, of silver-gilt—on it is the legend "Partiti vesti-"menta sibi et super vestem meam miserunt sortem"—made to contain a portion of the Saviour's tunic; on the base is a Madonna and Child.

2. Reliquary to contain portion of garment of the Blessed Virgin Mary, of the date 1504, with a legend.

3. A reliquary called the "Spina," of mixed style, the latest portion about 1590—a ship at the top.

4. A reliquary consisting of a *slender* column on hexagonal base, surmounted by a small crucifix, date late fourteenth century; but there is a *hall-mark* on it.

The most ancient specimens appeared to me to be a pair of square plaques made of silver, each about the size of a quarto volume and divided into twenty-four square compartments, each square surrounded by writing in the style of the thirteenth century, to indicate the relics in each square. These square frames were used as a safe for the relics themselves in times of danger, when removed from their ornamental surroundings.

In the treasury there is much that is most interesting: the mediæval specimens to be mentioned, in addition to those just named, being a highly-wrought late fourteenth-century reliquary, silver-gilt, with figures representing the Annunciation on the side of the glass containing the relic; and some cantors' staves, the name for which is *cetro*, of mediæval silver; also a cross, enamelled, of the thirteenth century, containing a portion of an arrow of St. Sebastian. A fifteenth-century chalice of unusual size, solid gold [fig. 4]. This chalice is only used once in the year, on Maundy Thursday and for the ceremonies of Good Friday. The base is octagonal: on each division are engraved letters AVE VERUM, angels holding instruments of the Passion; and in one compartment a Christus, ecce homo, and a shield.

Fig. 4.—Very large Gold Chalice, Cathedral of Palma.

In the treasury is an enormous custódia, or monstrance, standing on a throne; it is of mediæval workmanship, with additions. This is used in the processions of Corpus Christi.

Of a later date are several important pieces of plate, the chief of which is a custódia [fig. 5], the head of which can be removed and a cross inserted, made of silver-gilt. It stands 3 feet high with the cross, and 3 feet 6 inches high as custódia. Two angels hold a legend:—

Mel et lac sub lingua tua.
Lacte nutrit ut pane pascat.

Fig. 5.—Custódia from the Treasury of the Cathedral.

I am able to illustrate a few of the objects to which reference has been made by photographs taken for me under great difficulties, owing to the extreme darkness of the position they occupy, by my friend and host, Mr. Lee Latrobe Bateman, who is not only an expert in photographic manipulation, but an enthusiastic student of everything connected with Palman architecture. I could never have presented the sketch I have endeavoured to portray, but for his assistance in procuring for me the authorities on which so much that I have told you is based. As he is a considerable proprietor in the island, and therefore passes several months there each year, we may look, I trust, for some more enduring description of Palma Cathedral than I have been able to produce, and I am grateful for his permission to use the special photographs to which I have alluded.

Those who had charge of this vast Church never seem to have relaxed their efforts to obtain what was best during each century of its existence; and when it was decided to remove the choir to its present position in the centre of the nave, the best artists were engaged. One Juan de Sagrera, the Maestro Mayor or chief director of the works of the Cathedral, designed the enclosure between the years 1525 and 1530, with its two ambons or pulpits [fig. 6] in the style of the early Renaissance then prevailing. He was probably not a Mallorcan; but one Maximari or Maximo Marin was associated with him, who no doubt was a native of the island. The stalls [fig. 7], too, if not made in Italy, were designed there at the cost of a certain archdeacon, Don Luis de Villalonga, who, having gone to Bologna to study in 1517, as was the custom of noble Mallorcans, ordered these *bas reliefs* and ornamental works to be undertaken in Genoa, and his name was discovered written on the stalls themselves in the year 1707,

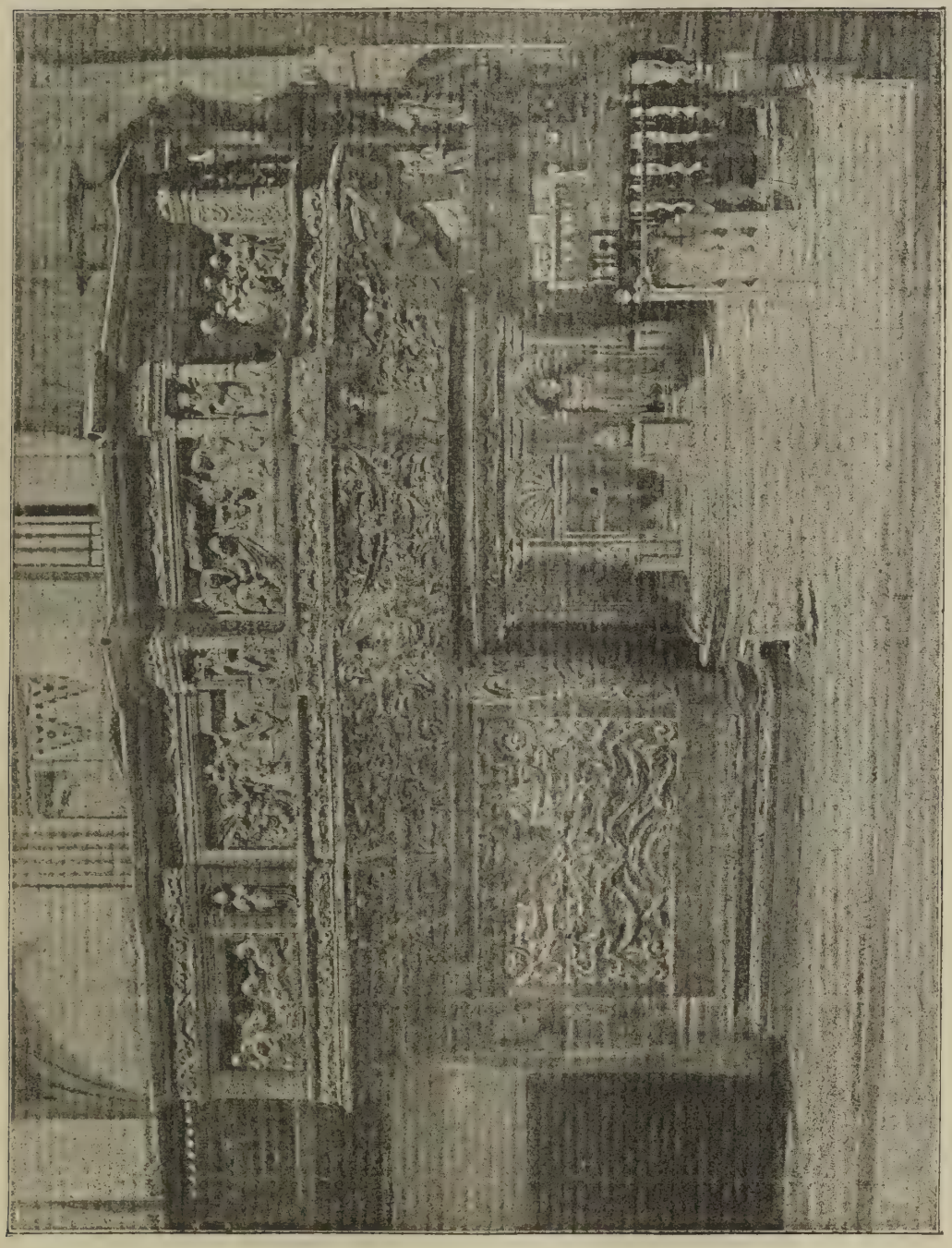

Fig. 6.—Pulpit or Ambo designed by Juan de Sagrera a.d. 1525 for the Cathedral, Palma, Majorca.

In short, the Mallorcans were in advance of other peoples in their adoption of the style prevalent in Italy about the year 1500; and had they but acted with similar advanced notions when a later and less desirable style of art came into fashion,

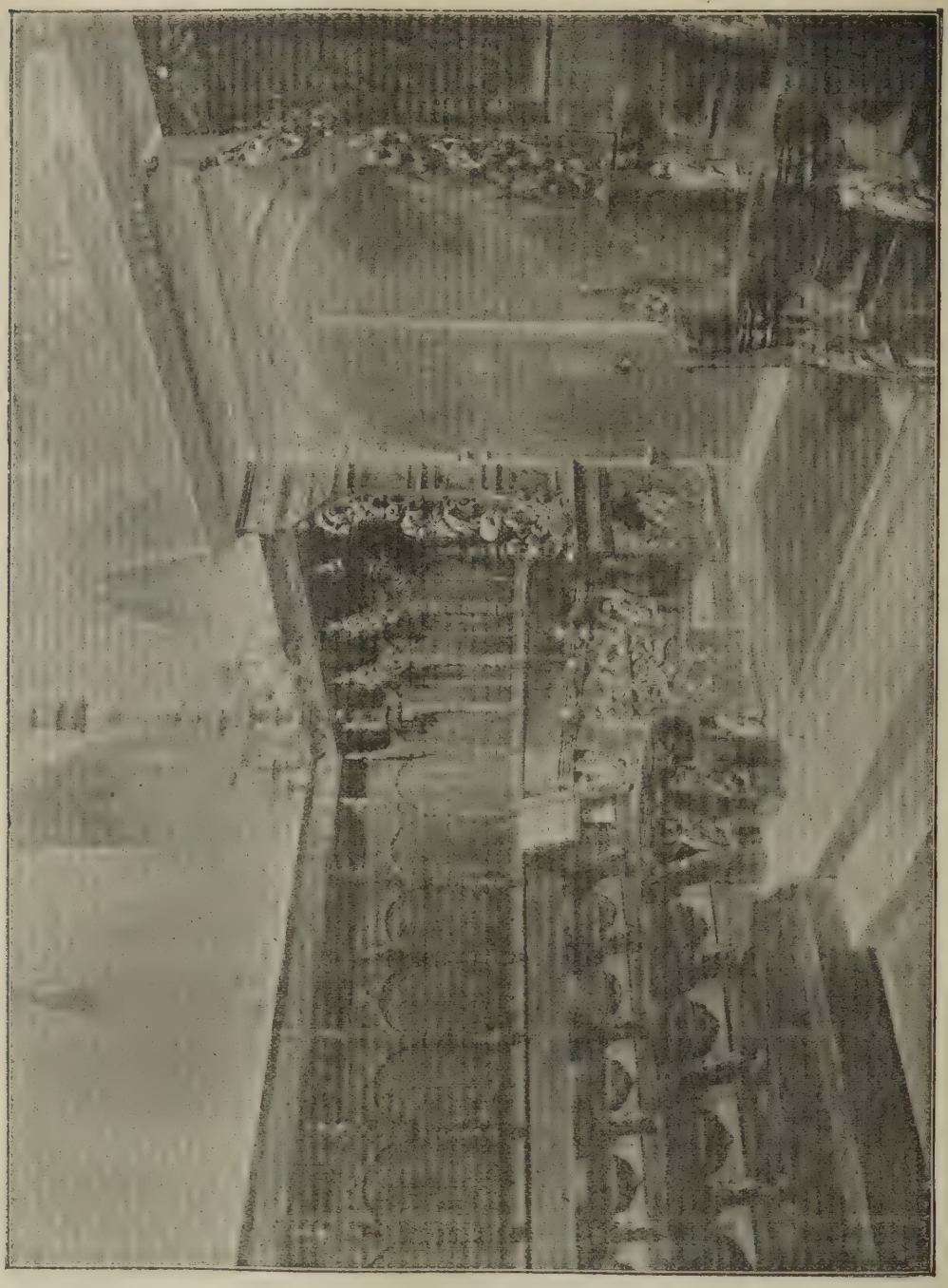

Fig. 7.—Choir Stalls in the Cathedral, Palma.

the ancient High Altar of their noble Cathedral would not have been obscured, and its side chapels filled with overloaded altar-pieces of the latest and more florid character.

Notwithstanding interruption in times of war, pestilence, and diminished income

after the decline of the Mediterranean trade subsequent to the discovery of America, each century took its share in the work of building Palma Cathedral. In the fourteenth century less work was done on account of the prevalence of inundations and pestilence, to say nothing of a state of war with Sicily and Naples, which caused frequent and large exactions to be made on Mallorca both in money and ships.

To ascertain the dates at which the different portions of the structure were raised, together with a knowledge of the period when the principal fittings were executed, has seemed to me of the first importance for the adequate investigation of the subject before us; fortunately for us the vanity of the noble families of Majorca at the time of the construction of the Church comes to our assistance. In order to obtain funds during its erection, these leading families contributed money for the work on condition that their private coats of arms should be sculptured on key-stones of the vaults and other portions of the stone-work; these afford undeniable proof of the moment of time when each part of the Church was constructed. I cannot myself lay claim to the verification of this essential information. I have been content to take from a very high authority this portion of the evidence concerning the building, in addition to the heavy debt I am under to the same source for the general information I have obtained, which has enabled me to present this subject in a tangible form for your consideration.

The limited power which I possess of reading, in the original, the Spanish works which treat of the island of Majorca, induced me to confine my study of authorities chiefly to the work of one writer, who, owing to the peculiar circumstances of his position, had special opportunity, besides possessing powers of no ordinary quality, to investigate on the spot the archives and other documents which give life to the history and details of this fine architectural monument.

In the year 1802 a distinguished man, Minister to Charles IV., was, owing to his political action at that time, incarcerated in the Castle of Bellver, situated, as I have mentioned, on the Bay of Palma. There he remained a prisoner till April 1808, and during that time he devoted himself to the study of our subject. The Cathedral itself rose bright and glorious before his eyes as he looked across the bay, and the very court-yard of his prison-house, a circular structure with its double arcade of Gothic arches, spoke to him with a like influence. The name of this distinguished man is Don Gaspar Melchior de Jovellanos, and it is of no small value to our investigations to have the matured conclusions of so capable a mind on the evidence, sometimes of a conflicting character, which during the lapse of centuries has accumulated around the object of this enquiry.

Having noticed the principal features of the Church, a word must be added as to the stability of the structure. Like Beauvais and other great buildings of inordinate height, Palma Cathedral has had, at different periods, to undergo a process of reconstruction in several directions. In proof of this, I must refer to a document concerning a commission of architects to examine the mischief that was going on subsequent to the completion of the building, and which was threatening the destruction of the Cathedral, notwithstanding that at different periods whole bays had been reconstructed.

The document is drawn up by Juan Carbonell, on the part of the principal architects of the kingdom, with an engineer associated with them.

The latest completed bays were discovered to be threatening an immediate fall.

The decision arrived at was that, "without waiting, a scaffold must be put up to "avert a proximate ruin, and that the Maestro must instantly see to the key-stones."

Jovellanos says that, "We have already seen how much they had to work, to renew "at the end of the previous century the second and third bays of the church. In 1659 "the archives of the Chapter show that, in the night of the 20th of May, one of the "arches of the Church fell down, and in 1698 the arch which stands in front of the "Chapel of St. Sebastian, and situated between the second and third columns on the "gospel side towards the principal door, came to the ground. In short, at least four

"of the arches of this Church cost twice as much as they need have done, had they been "properly executed from the first."

I now propose to take you beyond the precincts of the Cathedral towards the head of the harbour. Close to where all who come to the island have to disembark, is situated a remarkable building which was erected as an "exchange" for the merchants of Palma, on land placed at their disposal by "the Conqueror" in 1232. The building itself was not completed till the middle of the fifteenth century. It consists of a rectangular hall, divided into three divisions by a double row of spiral columns, three on each side, which support an arched and vaulted roof. Traceried windows and carved doorways of the fourteenth century combine to exhibit what was to me an altogether new experience of Gothic Pointed architecture as applied to civil buildings. It was designed by the eldest Sagrera in 1430.

I had unfortunately delayed visiting the Lonja till after at least a month had passed since my arrival, and during that period mischief of a serious kind had been wrought on this ancient building. The town authorities had decided to renovate the interior in order that the hall should be available for public réunions, and, I believe, dancing. The walls, it is true, were darkened and stained, but there was a tone of colour on the flutes of the spiral columns and the ribs of the vaulting which enhanced the effect of the whole interior of the building to such an extent that to scrape off the patina seemed little short of sacrilege.

My visit was paid in company with Mr. Mark, Her Majesty's Consul at Palma, an energetic lover of the arts which the island produced, and imbued with a wholesome horror of the damage that was being done to a monument of such interest as the Lonja. We found that operations had already begun: at one corner, that farthest from the door, they had already done irreparable damage by applying strong acids to the carved work, and were at the moment of my visit engaged in chipping and scraping the mouldings of two of the arches of the vaults to such an extent as seriously to alter their contour. To make a long story short, on return to where I lived, at no great distance off, I sat down and wrote a letter to the Consul, hoping that perhaps some outside notice of what was going on might strengthen any representations he might care to make, so as to induce the authorities to pause in their destructive work. I was not aware of the course he decided to adopt till the day but one following, when I took up a local newspaper and found that the whole of my letter had been translated into Spanish, and appeared with a covering statement from the Consul himself, in the same sense. Had there been time, I would have written home here to this place, and would have asked for assistance from our Council before writing; but there was not a moment to be lost, and I must, therefore, ask indemnity from you for having presumed to pose as a representative of the Royal Institute in order to avert this great wrong that was being done to an ancient building. If success sometimes justifies energetic action, perhaps on this occasion my offence may be condoned. The concluding paragraph of my letter * referred to another most interesting building, the Casa Consistorial, as follows:—

"There is another civil building of a later date in Palma, which ought to be pre-
"served with jealous care: the Casa Consistorial. It would be a matter of concern to
"lovers of art all over the world should these two specimens of what the city in its
"palmy days of commercial activity was able to raise for municipal and public pur-
"poses be allowed in any way to lose the impress of the original hands which built
"them; I trust, therefore, that you who live on the spot, and are imbued with such
"genuine love for the works of art in this interesting city, will use such influence as
"you can in the direction I have indicated."

The result of all this was that, in about a week there appeared in the same news-

* The letter was published in full in *The R.I.B.A. Journal*, Vol. IX. N.S. p. 189.

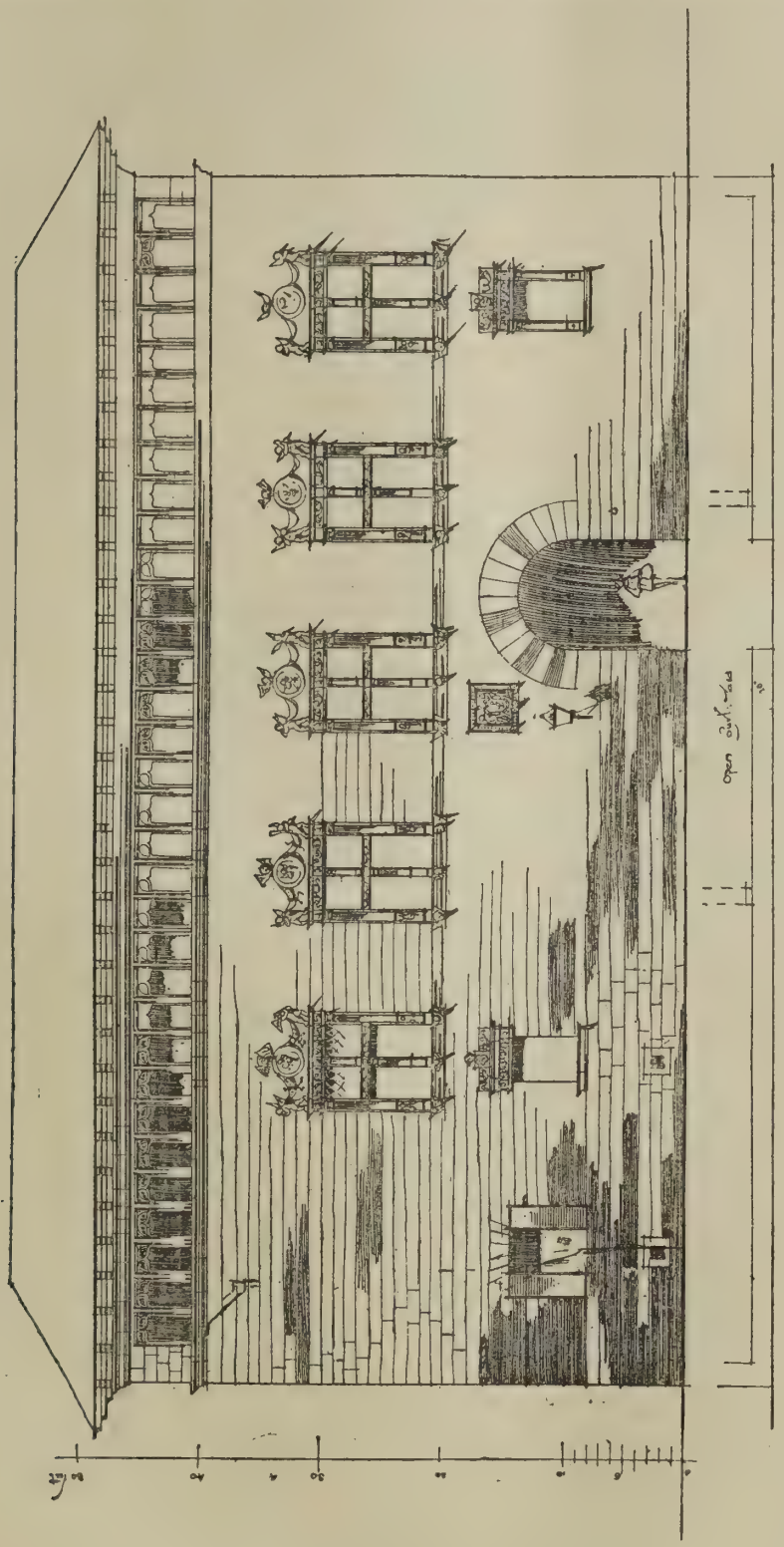

Fig. 8.—The Casa Palmer, Palma. Reduced from a drawing by Mr. Heber Rimmer.

paper a long letter in Spanish from the President of the Restoration Commission, replying in somewhat petulant terms to the statements we had made. Meantime, a strong feeling had arisen in the city, not only amongst ordinary persons, but in the ranks of the Commission itself, that the President, with his protégé, the so-called architect of the work, had taken too much upon themselves; in short, our views found favour, and the President was loudly blamed in every direction. This shortly reached the ears of the Government at Madrid, who immediately stopped the supplies, with the result that before I left I was informed that the scraping business at the Lonja had ceased, and that we should hear no more of it.

The Casa Consistorial, to which I had made allusion in my letter, is, I am told, not now to be pulled down, as contemplated, to make room for a feeble imitation of

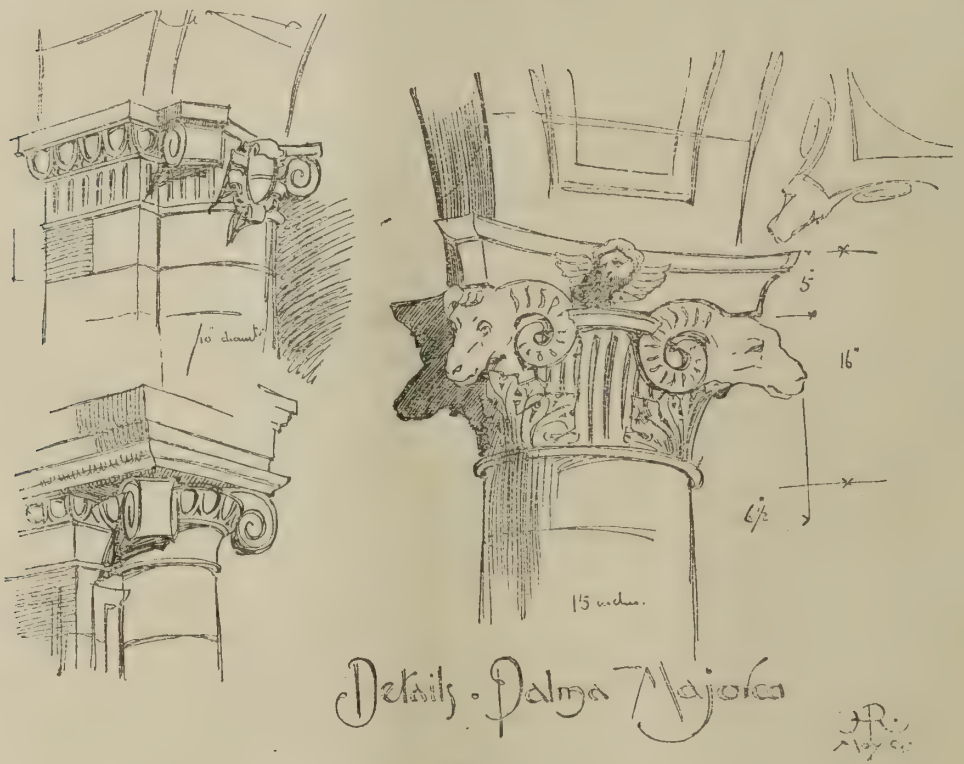

Fig. 9.

the Lonja; and it has been decided to repair the roof, to which belongs the striking overhanging eaves, the condition of which had been the excuse for the destruction of this interesting town-hall. Time does not permit me to speak of other civil buildings of a later date in Palma, but I must refer to a couple of drawings by Mr. Heber Rimmer, a prize-holder of the Royal Institute. The first is the elevation of the Casa Palmer [fig. 8], the town residence of one of the nobility; and I would draw special attention to the roof storey, as it shows what is the prevailing mode of dealing with the upper part of all domestic buildings of any pretension in the island. In this instance, notwithstanding the Renaissance character of the architectural detail, the Gothic arcade is retained as the crowning feature of the wall. I may add that the only use made of this upper storey, generally, is to allow sufficient air-space to ensure coolness to the rooms below. Note the arch leading to the courtyard; it is a specimen of

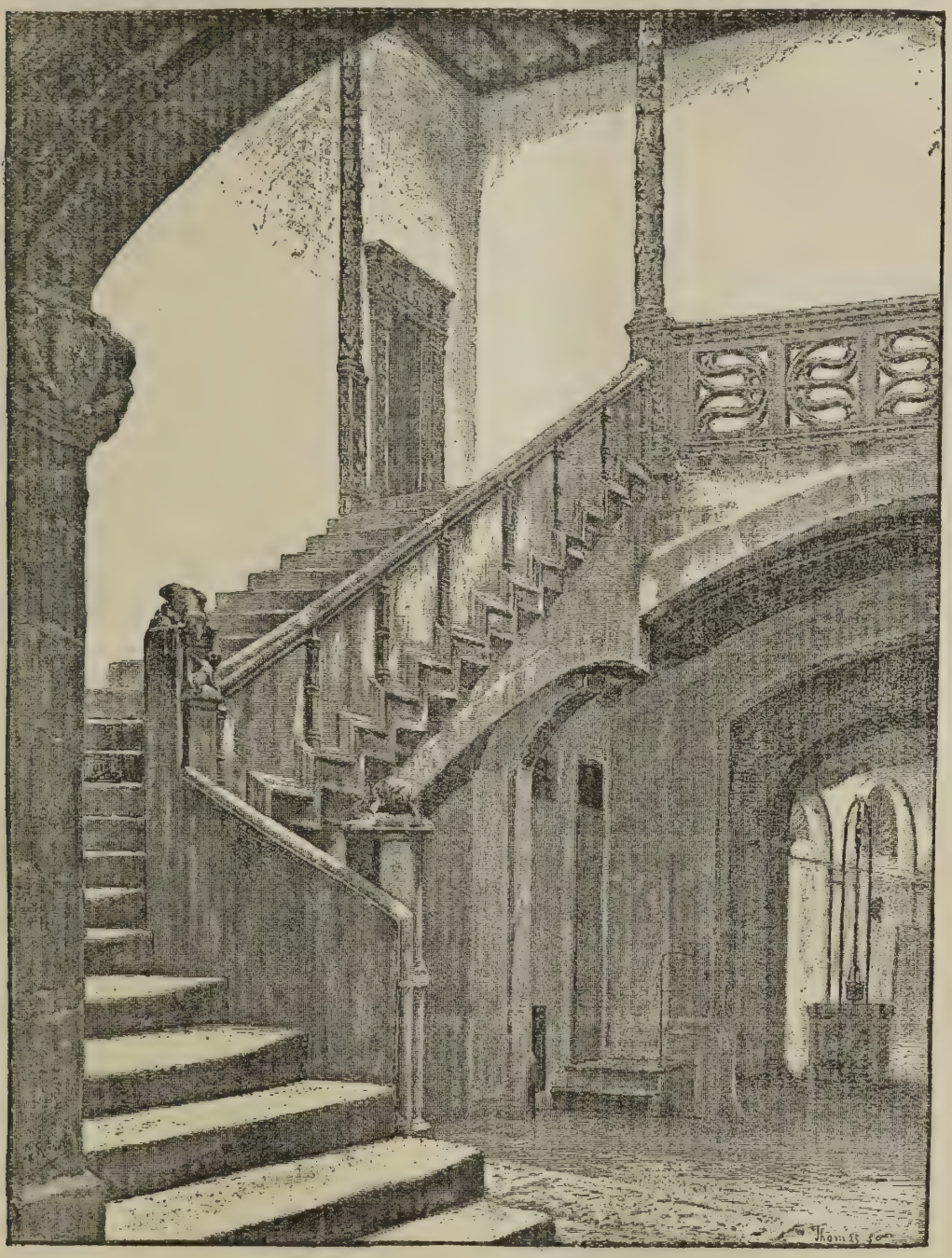

Fig. 10.—A Courtyard at Palma.

the style of entrance used everywhere in the island, a feature doubtless adopted from the architecture of the Moors.

The second sketch gives some details [fig. 9] of the fantastic decoration used in the architecture of the courtyards of the houses. They are a special feature of the place, and add immensely to the picturesque tone that everywhere prevails in this most interesting little city. An illustration [fig. 10] is appended of one of the earliest of these courtyards, which gives some idea of the way in which Gothic and Renaissance details have been worked up so as to produce a by no means inartistic effect.

Mr. President, you will have observed that, in the treatment of the subject which I have ventured to bring before the Institute on this occasion, I have endeavoured as far as possible to suppress my own individual criticism of architectural detail as exemplified in the buildings under discussion. It appeared to me that for one occupying the position I do in the distinguished body I have the honour of addressing, it would be presumption on my part to attempt to bias a decision that will be formed by those far more capable than I am of appreciating the architectural value of the works to which I have directed their attention. I am fully conscious of the unique value of the venerable buildings whose claims it has been my privilege to bring before you; and it is because in my opinion no adequate judgment could be formed as to their real worth, unless account were taken of the circumstances of their origin and the special surroundings to which, during a chain of centuries, to this very day, these walls have constantly borne witness, that at the risk of wearying you I have diverged towards matters which I felt should accompany any mere enumeration of architectural details. I hold that as architecture is the most enduring exponent of the life of a people, so, *per contra*, its meaning cannot be understood without reference to that same life which produced it; in short, looking for words other than my own in which to express the feelings which have induced the method I have adopted in bringing these matters before you, I should like in conclusion to recall a passage familiar to many here present to-night, written many years ago by that sweet singer of our art, John Ruskin, who, when lighting afresh the "Lamp of Memory," used this remarkable, and, for my purpose, most appropriate expression of my meaning:—

"It is as the centralisation and protectress of this sacred influence, that architec-
"ture is to be regarded by us with the most serious thought. We may live without
"her, and worship without her, but we cannot remember without her. How cold is
"all history, how lifeless all imagery, compared to that which the living nation writes,
"and the uncorrupted marble bears!—how many pages of doubtful record might we
"not often spare, for a few stones left one upon another!

"There are but two strong conquerors of the forgetfulness of men, Poetry and
"Architecture; and the latter in some sort includes the former, and is mightier in its
"reality: it is well to have not only what men have thought and felt, but what their
"hands have handled, and their strength wrought, and their eyes beheld, all the days of
"their life. . . . And if indeed there be any profit in our knowledge of the past, or any
"joy in the thought of being remembered hereafter, which can give strength to present
"exertion, or patience to present endurance, there are two duties respecting national
"architecture whose importance it is impossible to overrate: the first, to render the
"architecture of the day, historical; and, the second, to preserve, as the most precious
"of inheritances, that of past ages."

LENOX PRENDERGAST.

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THE REGISTRATION QUESTION.

On the 10th November 1887 a leading article appeared in this *Journal* [Vol. IV. N.S. p. 33] on "The Registration Question," written by Mr. Arthur Cates, a few months after the Supplemental Charter, under which the Institute now acts, and which bears the date of 28th March 1887, was granted by Her Majesty the Queen in Council. The statements then made and the arguments then used by the author of the article appear to apply so forcibly to the present position of affairs that, with the President's permission, it is here reprinted:—

A proposal for the compulsory registration of architects, and of others more or less connected with the several branches of the architectural profession, has recently formed the subject of discussion both in London and the Provinces; and a resolution of one of the Conference Meetings of May 1887 recommended "to the careful "consideration of the Council (R.I.B.A.) the "question of the registration, either compulsorily "or voluntarily, of *bonâ fide* architects and "architectural students." The meeting further suggested the appointment of a Committee to deal with the subject, and such a Committee is now sitting.

It has been taken for granted that the public at large will derive advantage from such registration, and that the profession itself will greatly benefit thereby; and some are even so sanguine as to hope that the result will be a closed profession with a schedule of professional remuneration settled by statute. Now, it is not necessary to discuss the merits of such aspirations, which in some distant future may perhaps be realised; but it is the obvious duty of the Institute to consider how far the existing organisation may be developed and made applicable to the promotion of the end in view.

At present the term "Architect" is of very wide application, and, in conjunction with appellations such as "Surveyor" and "Builder," does not in any way imply that the person so styled possesses any architectural knowledge, or has received any special training to qualify him for the practice of his art. This appears to be particularly the case in the provinces, but even in the metropolis any auctioneer or house-agent who can obtain commissions, and hire young or poor architects to do his work, calls himself an architect. It is stated that the main object of the advocates or promoters of "Registration" is to put an end to such a state of things, and to secure that, in the future, no one shall profess or call himself an architect unless he be duly qualified and "Registered."

If, however, compulsory registration is contemplated, the difficulties of determining a limit to such registration will be considerable. A wide limit might place in rank as "Registered Architects"—whose distinguishing and also distinguished affix would be "R.A."—a great number of unqualified persons not likely to do much credit to the profession, in fact, the limits to any scheme of compulsory registration must, from the necessities of the case, be so wide that, as far as concerns *bonâ fide* architects, it would be of little value; nor, in the present state of the architectural profession, does there appear to be the slightest likelihood of the Legislature sanctioning any scheme for making it a close one, or, in other words, of placing it by Act of Parliament on the same footing as the professions of law and of medicine.

But it is most desirable that the public should be provided with an assurance that the person calling himself an architect possesses an adequate knowledge of his profession,—that he has passed some recognised or standard test of the possession of such knowledge. Until, however, there exists a strong and united professional Body, whose influence shall extend to all parts of the Empire, any attempt to acquire compulsory powers limiting the use of the term "Architect" to those only who may be "Registered" appears to be a hopeless task.

In place of "Registration," with its many difficulties and dangers, the true solution of the question is apparently provided by membership of the Chartered Body of British Architects. The affixes denoting membership, as authorised by Letters Patent under the Great Seal, are now officially and legally recognised; they distinctly give to architects entitled to use them a professional position equivalent in its kind to that afforded by those affixes by which authorised practitioners in other professions are identified, and their absence should, in the near future, warrant close enquiry, as to incompetence or unworthiness on the part of architects who are not entitled to them.

The importance of the position to be ultimately filled by the Institute, in respect to this question, was long since felt and understood by one of the ablest of its Presidents, who, although not a professional architect, enjoyed from his peculiar station most favourable opportunities for arriving at a sound conclusion. In the first Presidential Address delivered by the late Mr. Beresford-Hope, he said,—

"I am ambitious for the honour and usefulness of "the Institute, and as the result of this ambition I "decline to rest where we are . . . . The Insti-"tute ought to be, without rival and without "demur, the central regulating areopagus of "architecture,—of architecture as a science and "architecture as an art; of architecture as prac-"tised by its professional votaries, and as studied "by the amateur—as loved by both—throughout "this Imperial realm. The time should come "when the absence of those letters which denote "some grade in the Institute, from the name of "any one who practises architecture, should be as "much the cause for enquiry as the absence of "academic distinction from that of the clergyman "who has the misfortune to be a literate. Do not "mistake me, and imagine that I am the mouth-"piece of any policy of aggression; least of all that

"I wish to crush the free art-life which has given "birth to so many other architectural and semi-"architectural societies . . . . I wish them all "prosperity and all liberty; at the same time I "desire that they should all act as members of "one system . . . . looking up to this Institute ". . . . as the *Alma Mater* ready to give all "fostering care, at the cheap price of unsuspicious "confidence."* Thus, in the year 1865, when the use of the affixes F.R.I.B.A. and A.R.I.B.A. was admitted only by courtesy, or some such kind of toleration, Mr. Beresford-Hope desired that the day should come when the absence of those letters from the name of any one who practised architecture should be as much a cause for enquiry as the absence of academic distinction from that of the clergyman. At that time the restricted powers of the Institute, and the somewhat limited view which many took of its functions and duties, rendered the aims of its President then impossible of achievement, or possible only at some future period. That period is now happily approaching; the establishment, in 1882, of an Obligatory Examination for the Associateship, appointed under the By-laws made in 1877, was the first step. The powers and privileges conferred by the Supplemental Charter, more especially in the matter of examinations and of certificates and titles of membership, have consolidated the position of the Institute, and brought the aspirations of Mr. Beresford-Hope within measurable reach of realisation. The action of the recent Conference Meeting on Education has further advanced matters. The series of Progressive Examinations contemplated by the important resolutions passed at that Meeting, ought at no distant date to secure that every candidate for admission to the Institute possesses a reasonable acquaintance with the principles and duties of his profession; and, by the co-operation of local Societies, these examinations, with the necessary preparation for them, may be made available for all students of architecture throughout the country, —and in course of time throughout the Empire.

The opportunity is at hand for liberalising the constitution of the Institute. The Supplemental Charter has cleared the ground, and given wide scope for freedom of action; without lowering the standard of professional honour or status, it meets some of the requirements of the day, thus enabling the Central Chartered Body to take its proper position by the admission of all qualified architects. The question of Registration will at once be solved if every one who is really an architect will take immediate steps to become a Fellow or an Associate of the Institute. When the merits of such distinct registration have been brought home to the public by all those who practise the profession of an architect, the value of the respective titles will be speedily appreciated and understood.

* See Mr. Beresford-Hope's Opening Address, 6 Nov. 1865, TRANSACTIONS, 1865–66. See also *The Builder*, of 29 Oct. 1887 (page 590), in which the greater part of the passage is quoted.—A. C.

Architects practising in this country and others in the Colonies have passed the Examination in Architecture, and have afterwards been elected Associates, with, as they have warmly expressed, very great advantage to themselves personally and professionally. If the senior members of the Institute will actively encourage the younger practitioners to thus enter its ranks, their success will be of immense advantage to the whole profession. In doing this, they must employ personal influence, energetically and perseveringly; they must take pains to remove misapprehension, to correct mis-statements, to satisfy the doubts of the wavering, and, as regards their own pupils, to impress on each, from his first entry into the office, that his studies must be so directed as to lead him up to pass the Examinations of the Institute. The good example thus set will undoubtedly induce others to take a similar interest in the work to be done, and lead in due course to the only satisfactory solution of the "Registration" question,—by every one who is really an architect becoming *by examination* a Fellow or an Associate of the Royal Institute of British Architects.

ARTHUR CATES.

PROCEEDINGS.

Monday, 5th June 1893.

Fifteenth General Meeting (Business).

[Mr. Macvicar Anderson, *President*, in the Chair.]

The general business of the Meeting, which included a ballot for new members and the announcement from the Chair of the results of the annual elections of the Council and Standing Committees, will be found fully reported in the Minutes given on subsequent pages. The Discussion of the Motions, of which notice had been given by Mr. G. A. T. Middleton [*A.*], did not commence until a quarter to ten o'clock (owing mainly to the Special General Meeting which preceded this), and terminated at half-past ten.

ARCHITECTS' REGISTRATION BILL.

The PRESIDENT.—We have delayed Mr. Middleton a long time with the business of the Meeting, but he has given notice of certain Motions which he wishes to propose, and he has now an opportunity of doing so.

MR. G. A. T. MIDDLETON [*A.*].—Mr. President and Gentlemen, I will do my best in the short time there is to say what I have to say. You will remember, Sir, that upon the discussion of the Report I questioned the right of the Council to petition against the Architects' Registration Bill without consulting the members, and your answer was, as reported in the *Journal of Proceedings*, that the subject was discussed in this room on one occasion, and the Council were instructed to petition against the Bill. I thought I remembered the circumstance, and I wrote to the Secretary and asked for a copy of the Resolution and its date. The Resolution runs as follows:— "Resolved, *nem. con.*, that the Royal Institute of "British Architects do, under its common seal, "petition the House of Commons against the

"second reading of the Architects' Registration "Bill, now before Parliament, and pray to be "heard by counsel against the Bill." The Resolution was passed at a Special General Meeting held on 22nd March 1888. I then wrote to the Secretary asking at what date the new Charter came into force, for I imagined that that took place under the old Charter, when Fellows only had a right to vote. I was answered that the new Charter and By-laws came into force on 7th February 1889—a year after this Resolution. Upon that I gave the Notice of Motion which appears upon the agenda paper. But what was my astonishment when I saw upon the agenda paper not only this Notice of Motion, but a certain statement at the bottom stating:—"In reference "to the above notices, the attention of members "is officially directed to a Sessional Note which "appears on the first page of the *R.I.B.A. Journal* "issued to-day. The petition presented on the "10th instant against the Architects' Registration "Bill now before the House of Commons was "authorised by the adoption on the 1st instant "of the Annual Report of the Council. Further, "in previous years the Council have annually "reported to the General Body of the Institute "their intention to petition against the Bill; "and this they have done in pursuance of the "instructions given by a Special General Meeting "of the Institute held 22nd March 1888, which "instructions have never since been withdrawn." Now, I claim as a member of this Institute, that when I give a Notice of Motion I have a right to the first speech upon that Motion, and that the introduction of such a note as this, and the introduction of a note in the *Journal* upon a Motion which has not been heard in this room, is unconstitutional, and that I ought to have been allowed to speak first. I have been placed in a difficult position. Instead of having the first speech, I now have the second, and I am obliged to reply where I had hoped to have been able to speak first. Certain things which I was about to say have been assumed. It first is assumed, both in the note in the *Journal* and in the *Supplement* to it, that that Resolution of 1888 still holds. That, Sir, I think, is distinctly not the case. First, the constitution of this Institute has been entirely changed since then. A new Charter has been granted, and the Associates have now power to vote as well as the Fellows, and we have an enormously increased number of members, and especially an enormously increased number of voting members. Morally, if not legally, on that account alone that Resolution is *nil*. But, still further, that resolution refers to the Bill "now "before Parliament." The Bill that was before Parliament in 1888 was Colonel Duncan's Bill for the registration of architects, engineers, and surveyors, and was petitioned against because it included engineers and surveyors as well as architects. I remember well the discussion in this room, in which that was the main ground that was put forward, and I believe if the petition were read it would be found that that is the case. The Bill now before Parliament is quite a different thing. Upon that ground also the Resolution of 1888 is no longer valid. Then the Council, foreseeing this point, bring forward the argument that they have inserted a clause in the Annual Report to the effect that they intend to petition against the Bill. I think that the mere adoption of a sentence like this does not necessarily bind the Institute to that course. It cannot be said that a few words in a general report are as binding as if a Resolution had been passed by a vote of the members. Now, I wish to refer to another matter, which has not even been mentioned in the Annual Reports, although it is important, yet not of the importance of the Registration Bill. I refer to the opposition, and the very persistent opposition, to the incorporation of the Society of Architects—an opposition that has been overruled by the Board of Trade. It is, however, very late, and I wish to pass on to more important matters, and so, if you will allow me, I will drop that first Resolution—particularly as I do not even wish that a Resolution should appear upon the books which would in any way seem to be a Resolution derogatory to the Council, or in any way calling their action in question. I would rather it did not even appear as being put, so that, if you will allow me, Sir, I will withdraw the motion marked 2.

THE PRESIDENT.—It rests with the Meeting as to whether Mr. Middleton should be allowed to withdraw it or not. It has been put in print, and sent to every member of the Institute, and I should think myself it ought not to be withdrawn. It is for the Meeting to say, however.

Disapproval having been expressed by the Meeting of any withdrawal of the Motion, Mr. Middleton continued.

MR. G. A. T. MIDDLETON [*A.*].—As it appears to be the general feeling that the Motion should be made, I hope that it will not be seconded. My Motion is that before the Council take action in a measure of such great importance to architects as the "Architects' Registration Bill," the members should be fully consulted thereon.

MR. JAMES NEALE [*F.*].—I shall be pleased to second that, though I consider the members have been duly consulted upon it.

Some conversation having followed as to the character of the Motion, Mr. J. A. G. Knight [*A.*] asked if the Council had received authority since 1888 to oppose the Bill.

THE PRESIDENT.—The authority given to the Council by the Institute in 1888 was perfectly specific. It was no negative authority; it was positive; and the Council are bound—it is their simple duty—to petition against the Bill until that authority is cancelled. It never has been cancelled, and the Council have consistently petitioned against the Bill in conformity with it. Mr. Middleton has pointed out that since that authority was given the constitution of the Institute has been changed. In certain particulars that is doubtless true. But it is entirely beside the question. It has nothing whatever to do with the authority given in 1888, and nothing could have anything to do with it except its being cancelled by the Institute. Not only has the

Institute not done so, but we have every year stated explicitly in our Annual Report to the Institute that we have petitioned against the Registration Bill then before Parliament, or that we propose to petition against it; and these reports have year after year been adopted by the Institute, whereby the action of the Council has been confirmed.

MR. J. A. G. KNIGHT [*A.*].—Mr. President, may I ask whether that Resolution passed in 1888 applies to every Bill which may be brought forward, say in twenty years' time, if the Resolution is not rescinded.

THE PRESIDENT.—The Bill is practically the same Bill that was then before Parliament. I do not imagine even its promoters, although we do not know who they are, will dispute that. Gentlemen, it has been moved and seconded that, before the Council take action in a measure of such great importance to architects as the Architects' Registration Bill, the members should be fully consulted thereon.

Further conversation as to the character of the Motion having taken place, Mr. James Neale withdrew his support of it, and Mr. Middleton's Motion was seconded by Mr. Knight—the result being that it was negatived by a large majority, five members voting for it.

MR. G. A. T. MIDDLETON [*A.*].—Passing on to my next Motion, I believe I have the Council with me in the wish that this Bill should be printed and issued to the members. A note in the *Journal* urges, upon very different grounds from those which I urge, that the Bill should be read by everybody, and its provisions made known to everybody. I cannot, however, ask you to deal with this measure without knowing what the measure is, and I claim the right as a member of the Institute—[THE PRESIDENT.—I think you may assume, Mr. Middleton, that every member does know what the Architects' Registration Bill is.] I am afraid that my own opinion is a little different from that, and that the real scope of the Bill is not known, and that what its promoters intend by the measure is not known and not understood. I think you will give us credit for this—that it has been introduced with the full intention of doing good to the profession of architects. I should wish to go through its main clauses at least. I will do it as shortly as I possibly can, and just take the leading points. First, it is intended to appoint a General Council, such as there is in Medicine—such as the General Medical Council—not usurping any of the functions of the existing bodies, just as the Medical Council does not usurp the functions of the College of Surgeons or any of the main medical bodies. Now, the word "education" has been introduced this year, for the word "registration" has for many years obliterated the main scope of the measure. It is to compel the proper education of architects before they are allowed to practise their profession. It is really a measure for education. The registration is a secondary part of it—necessarily involved in it—but the main question is that of thorough education. Then comes the constitution of the General Council. Now, the Institute is very much represented on that body, and it is proposed that the Institute should be very fully represented indeed upon it. One-sixth directly, and the others would necessarily be nominated from the Institute—both what are called direct representatives, elected representatives from the practitioners throughout the country, and those nominated by the Privy Council. Then this General Council has the right of supervision of the examining body only. It can report to the Privy Council "that the standard or conduct of "the qualifying examinations in the opinion of "the General Council is unsatisfactory, or that "the body or bodies constituted as examiners is, "or are, unwilling to act, and that it is ex-"pedient that such body or bodies be ap-"pointed as to the Privy Council shall seem "fit." The actual appointment comes later. Then, at Section 11, "The Charters of the Royal "Institute of British Architects are hereby con-"firmed," just as are the Charters of similar bodies in other similar Acts. Then comes the application of fees, for there are fees raised for the working of the Act. This is all very much as it is in the Medical Acts. Then, in Section 18, there is a very important provision giving the General Council the power of removing from the rolls black sheep. We all know how difficult it is now to get rid of a black sheep out of the architect's profession. That alone is one of great importance. Then as to who shall be included in the first registration. That is contained in Section 19. Here the Royal Institute is placed in as good a position as it has been possible to place it, all the members being admitted and without fee, and without the annual renewal fee which is claimed from all outsiders, because these fees are, as it will be seen, absolutely necessary for the working of the Council. There must be some fees of some sort. Passing over the provisions for the introduction of all who can show that they have a real right to be admitted to practice at the present time—those who have established by a practice up to the present the right to be allowed to earn their living by architecture in the future—then, after the passing of the Act, there must be a proper training in an architect's office, and then examination. The examination itself is to be a qualifying examination similar to those now held by the Institute. Power is given to this Institute which it has not now, of carrying its good work forward through the whole profession. It now can only do it voluntarily among those who care to come forward. If this Bill be passed, all will be obliged. That is the great difference between the Institute's present work and what it would be able to do under the Bill. The Institute's powers will themselves be enormously enlarged. Then no one is to be allowed to use the word architect, or to claim fees as an architect, unless he is registered under the Bill. A similarly worded clause in the Medical Acts has been found to be quite sufficient protection. Then there is also this proviso: "Provided always that "nothing in this section shall be held to prejudice "the right of professional members of the Insti-

"tution of Civil Engineers or the Surveyors' 'Institution to recover charges for work of any "kind falling within the duties of their calling." That has been added at the instigation of those two Institutions. They were opposing the measure, and therefore a section had to be introduced, and was introduced, of this kind. It is open to amendments, as the whole Bill is open to reasonable amendments, and I am sure the member who has it in hand will take any amendments into consideration, and deal with them fairly and justly as well as he can. One can see that this is a proviso to which this Institute might have some objection; it is one that this Institute might discuss with a view to alteration, or to suggested alteration. Now I will simply, in conclusion, say this: that many of the members of the Institute have not read the Bill, and do not know how it is to be obtained. They do not know even that it is published by the House. They really have not read it, and have not considered it; they do not know its scope or details, and there are members who have spoken, too, who are in that position. I ask that the Bill shall be so placed that they cannot easily escape it. The matter is of great importance to the whole profession, and I think they should have the Bill before them, and have it in their power to read it, and to see what it is in all its details. I therefore propose that this Bill be printed and circulated amongst the members.

Mr. R. WILLIAMS [*A.*].—Mr. President and Gentlemen, I beg to second this Motion: "That "the Architects' Registration Bill, 1893, be printed "*in extenso* and sent to every member of the In- "stitute, with a request that he read it carefully." I should like to be one of those to receive a copy, for I have not yet read the Bill. You send many other things through the post to us; and I think it would be well for the Institute to go to the expense of sending a copy of this Bill to members in order that they may at least see what an important measure there is in the House of Commons having to do with their welfare. Now, I second this for one particular reason. A Bill for the registration of architects cannot in any way harm us. On the other hand, as the road in this country is open to those placed in the lowest positions to rise by honesty and perseverance to the highest positions, so I think that some measure of this kind, if properly approved and considered, would not tend to harm, but rather would be a help to guard the true interests of our art.

The PRESIDENT.—I propose to put the Motion at once, Gentlemen. It seems to me that Mr. Middleton has not been without a tinge of humour in bringing this Motion forward. It seems to me a most comical proposal that the Institute should be invited to go to a very large expense for circulating a document of the contents of which it absolutely disapproves.

The Motion having been formally put, five members voted in its favour, and it was negatived. The remaining Motions of which Mr. Middleton had given notice were then withdrawn by him, and the proceedings terminated.

MINUTES. XV.

Special General Meeting.

At a Special General Meeting, held on Monday, 5th inst., at 8 p.m., Mr. Macvicar Anderson, *President*, in the Chair, with 37 Fellows (including 13 members of the Council), 33 Associates (including three members of the Council), and 1 Hon. Associate, the notice convening the Meeting was taken as read, as follows:—

To receive and consider a Recommendation from the Council to so modify By-law 25 as to permit every Allied Society to be represented on the Council of the Royal Institute. The present By-law is thus worded:—

25. The Council shall consist of *not more than thirty-six* members, viz.:—
   (*a*) The President, four Vice-Presidents, an Honorary Secretary, eighteen Members of Council, and two Associate-Members of Council.
   (*b*) Chairmen for the time being of Branches of the Royal Institute within the United Kingdom, established as hereinafter provided.
   (*c*) Presidents for the time being of Societies within the United Kingdom, in alliance with the Royal Institute, as hereinafter provided, such Presidents being Fellows of the Royal Institute.
   (*d*) One Fellow or Associate of the Royal Institute as representative of The Architectural Association (London).

The Chairman to move—That the words "not "more than thirty-six" be omitted, and, in lieu thereof, the words "the following" be inserted; and that the necessary steps be taken to effect such modification of the By-law.

The Recommendation having been moved by the President, and seconded by Mr. Arthur Cates [*F.*], an Amendment, referring the matter back to the Council for further consideration, was moved by Mr. Edwin T. Hall [*F.*] and seconded by Mr. Ralph Nevill [*F.*].

Mr. Beresford Pite [*A.*], Mr. John Slater [*F.*], and Professor Kerr [*F.*] having continued the discussion, the President and Mr. Cates expressed their concurrence with the proposal to reconsider the constitutional question involved in the suggested alteration; and it was

Resolved, that the Recommendation to so modify By-law 25 as to permit every Allied Society to be represented on the Council of the Royal Institute be referred back to the Council for further consideration.

The proceedings of the Special General Meeting then closed.

Fifteenth General Meeting (Business).

At the Fifteenth General Meeting (Business) of the Session, held on Monday the 5th inst., at 9.45 p.m., Mr. Macvicar Anderson, *President*, in the Chair, with 37 Fellows, 33 Associates, and 1 Hon. Associate, the Minutes of the General Meeting (Ordinary), held on the 15th ult., were taken as read and signed as correct.

The decease of Caleb Stanger, *Associate*, was announced.

The receipt of a large number of donations of books, pamphlets, &c., for the Library [see *Supplement* No. 16] was announced, and it was

RESOLVED, that the thanks of the Institute be recorded to the several donors.

The following Fellow, attending for the first time since his election, was formally admitted, and signed the Register of Fellows, namely :—Stephen Salter, jun. (formerly of Ryde, Isle of Wight).

Having reference to the list of defaulters under By-law 20, the President made the following statement :—It is my duty to announce that by a Resolution of the Council passed under the provisions of By-law 23, the following one Fellow and three Associates have, in accordance with the terms of By-law 20, ceased to be Members of the Royal Institute, namely :—John Theodore Barker, formerly of 8 Furnival's Inn, E.C., *Fellow*; and William Washington Ballard, of 12 Portland Terrace, Regent's Park, N.W., Walter Hooker, formerly of 79 New Oxford Street, W.C., and Charles G. Maylard, formerly of Dilston Lodge, Queen's Road, Weybridge, *Associates*.

The Meeting having appointed two Scrutineers, namely, Mr. Cole A. Adams [*F.*] and Mr. Edwin T. Hall [*F.*], the following candidates were balloted for and declared to be duly elected :—

As Fellows (9).

ROBERT WALKER (Windermere).
FREDERICK MONTAGUE GRATTON [*A.*] (Shanghai).
JOHN FLAVEL CURWEN (Kendal).
ARTHUR CROW [*A.*]
FREDERICK BENNETT SMITH (Manchester).
THOMAS EGBERT LIDIARD JAMES.
THOMAS STEVENS (Bournemouth).
FRANCIS EDWARD CAWS (Sunderland).
EDWARD GLOVER (Dublin).

In accordance with the terms of paragraphs (*b*) and (*c*) of By-law 9, the following candidates were elected by show of hands :—

As Associates (26).

JOHN WILLIAM BLAKEY (Liverpool).
ALBERT EDWARD DIXON (Leeds).
WILLIAM JAMES ANDERSON (Glasgow).
FRED HUNTER LINES.
THOMAS ASHTON LOFTHOUSE (Middlesbrough).
MARSHALL ROBINSON (Bolton).
BENJAMIN PRIESTLEY SHIRES (Plymouth).
WILLIAM CLARKE ASHWORTH.
WILLIAM HENRY BEEVERS (Leeds).
HENRY BLACKBOURN.
SIDNEY FRANK HARRIS (Northampton).
JAMES RANSOME.
ARNOLD THORNELEY (Southport).
EDMUND BLAYNEY CLARK (Birmingham).
CHARLES JAMES CLARK (Aldershot).
HENRY CURRIE CREIGHTON (Newport, Mon.).
WILLIAM RICHARD GLEAVE (Manchester).
GILBERT MURRAY SIMPSON (Brighton).

As Associates (*cont.*)

EDWIN ARTHUR HILL.
EDMUND DEALTRY PICKFORD.
ANDREW ROBERTSON (Glasgow).
WILLIAM COWIE (Glasgow).
CHARLES HENRY HEBBLETHWAITE (Ipswich).
FRANK TUPPER WHITE.
PERCY FRANK HOCKINGS (Brisbane).
ALFRED GLADDING.

As Hon. Associate.

ALEXANDER WOOD, M.A.Oxon.

As Hon. Corr. Member.

EUGÈNE MÜNTZ, Member of the Institut de France (Paris).

THE ANNUAL ELECTIONS.

The President read the Report of the Scrutineers appointed by the Annual General Meeting [see p. 332 *ante*], to conduct the election of the Council, as follows :—

THE COUNCIL, 1892–93.

To the Chairman of the General Meeting to be held 5th June 1893.

SIR,—We have the honour to report that the voting papers were removed from the envelopes without being unfolded. The envelopes were then handed to the Secretary. On examination of the voting papers it was found that 463 ballot papers for the Election of the Council and Auditors had been received. Of these, one was entirely invalidated owing to the erasures having been made in pencil. In addition to the above, votes for the following sections were found to be invalid owing to various irregularities, viz. :—For Vice-Presidents, 8; for Members of Council, 4; for Associate Members of Council, 16; and for Presidents of Allied Societies, 23. The remaining votes were then counted, with the following results, viz. :—

President.—John Macvicar Anderson (unopposed).

Hon. Secretary.—William Emerson (unopposed).

Vice-Presidents (4).—Aston Webb, 407; James Brooks, 395; Campbell Douglas, 360; Alexander Graham, 343. The following candidate is not elected :—*Robert William Edis*, 182.

Members of Council (18).—Thomas Edward Collcutt, 434; Ernest George, 425; George Aitchison, 399; Arthur Cates, 397; John Alfred Gotch, 394; Richard Phené Spiers, 390; John Belcher, 383; John Slater, 380; Wyatt Papworth, 376; Thomas Blashill, 375; John McKean Brydon, 366; Henry Louis Florence, 359; Lacy William Ridge, 347; Edward Augustus Gruning, 335; Arthur Edmund Street, 314; Thomas William Cutler, 307; Edwin Thomas Hall, 301; Benjamin Ingelow, 297. The following candidates are not elected :—*William Young*, 268; *Ralph Selden Wornum*, 234; *Henry Cowell Boyes*, 18; *John G. Finch Noyes*, 160.

Associate-Members of Council (2).—Paul Waterhouse, 354; Thomas Miller Rickman, 303. The following candidate is not elected :—*Herbert Osborn Cresswell*, 216.

Representatives of Allied Societies (9).—Thomas Drew (Royal Institute of the Architects of Ireland), 366; William Hale (Birmingham Architectural Association), 332; Henry Hartley (Liverpool Architectural Society), 306; George Bertram Bulmer (Leeds and Yorkshire Architectural Society), 302; Edward Salomons (Manchester Society of Architects), 296; Alfred Henry Paget (Leicester and Leicestershire Society of Architects), 285; Charles John Innocent (Sheffield Society of Architects), 279; Henry Crisp (Bristol Society of Architects), 275; William Forrest Salmon (Glasgow Institute of Architects), 272. The following candidates are not elected:—*Edward Appleton* (Devon and Exeter Architectural Society), 234; *Joseph Hall Morton* (Northern Architectural Association), 215; *William Arthur Heazell* (Nottingham Architectural Society), 208; *William Mackison* (Dundee Institute of Architecture, &c.), 171.

Representative of the Architectural Association.—Edward William Mountford (unopposed).

[The above members declared to have been duly elected compose the Council.]

Auditors.—*Fellow*, James Neale; *Associate*, George A. T. Middleton (unopposed).

We have the honour to be, Sir, your obedient servants, Edwd. H. Martineau, Chairman, W. Kidner, A. E. Purdie, C. Stanley Peach, G. A. T. Middleton.*

The President read the Reports of the Scrutineers appointed by the Annual General Meeting [see p. 332 *ante*] to conduct the election of the four Standing Committees, as follows:—

Art Standing Committee.

Fellows (10).—The following candidates are elected:—Ernest George, 397; Thomas Edward Collcutt, 395; Alfred Waterhouse, 379; John McKean Brydon, 338; Edward William Mountford, 337; James Brooks, 336; William Douglas Caröe, 333; John Belcher, 328; Henry Louis Florence, 283; and James Neale, 266. The following candidates are not elected:—*Frank Thomas Baggallay*, 247; *Eustace Balfour*, 193; *William Samuel Weatherley*, 182; and *William Kidner*, 109.

Associates (6).—William Henry Bidlake, 389; Edward Ingress Bell, 386; Arnold Bidlake Mitchell, 354; George Sherrin, 324; William Henman, 318; and Owen Fleming, 231. The following candidates are not elected:—*Charles Henry Löhr*, 202; and *Andrew Oliver*, 188.

Literature Standing Committee.

Fellows (10).—The following candidates are elected:—Professor George Aitchison, 375; Alexander Graham, 374; John Alfred Gotch and Richard Phené Spiers, 372; David Brandon, 360; John Slater, 343; Arthur Edmund Street, 325; Benjamin Ingelow, 315; Edgar Philip Loftus Brock, 308; and Frank Thomas Baggallay, 293. The following candidates are not elected:—*Ralph Selden Wornum*, 198; *George Halford Fellowes Prynne*, 192; *William Howard Seth-Smith*, 169; and *George Henry Bibby*, 78.

Associates (6).—Paul Waterhouse, 362; Arthur Smyth Flower, 350; Ravenscroft Elsey Smith, 322; Frank Granger, 319; Herbert Osborn Cresswell, 287; and Andrew Noble Prentice, 249. The following candidates are not elected:—*Charles James Tait*, 181; *Thomas Arnold*, 159; and *Theodore Moore*, 150.

* Mr. Cleaver and Mr. Woodward also attended, but were not present when the Report was signed.

Practice Standing Committee.

Fellows (10).—The following candidates are elected:—Cole Alfred Adams, 372; Samuel Flint Clarkson and Lacy William Ridge, 354; George Enoch Grayson, 352; Edwin Thomas Hall, 350; Joseph Stanislaus Hansom, 348; Joseph Douglass Mathews, 346; William Jackson and Edmund Woodthorpe, 308; and George Rackstrow Crickmay, 305. The following candidates are not elected:—*Henry Cowell Boyes*, 285; and *Stephen Salter*, 239.

Associates (6).—The following candidates are elected:—Walter Hilton Nash, 406; Thomas Miller Rickman, 398; Thomas Batterbury, 395; Frederick Henry Appleton Hardcastle and Robert Stark Wilkinson, 386; and Augustus William Tanner, 365.

Science Standing Committee.

Fellows (10).—The following candidates are elected:—Percival Gordon Smith, 382; William Charles Street, 376; Herbert Duncan Searles-Wood, 375; Thomas William Cutler, 368; Lewis Angell, 367; Arthur Baker, 359; Henry Tanner, 349; Ernest Turner, 347; Henry Dawson, 319; and Banister Fletcher, 311. The following candidates are not elected:—*William Warlow Gwyther*, 231; and *Ebenezer Gregg*, 207.

Associates (6).—The following candidates are elected:—Francis Hooper, 371; Henry William Burrows, 362; Maximilian Clarke, 351; George Austin Pryce Cuxson, 291; Henry Thomas Hare, 277; and George Richards Julian, 264. The following candidates are not elected:—*Henry Lovegrove*, 255; and *Bernard John Dicksee*, 245.

The Scrutineers who attended to conduct the election, and who so divided their duties that no Scrutineer acted in the election on a Committee for which he was a candidate, were Messrs. Baggallay, Florence, Neale, Osborne Smith, Phené Spiers (Chairman), and Todd, *Fellows*; and Messrs. Dicksee, Kenyon, Niven, Prentice, Walter Spiers, H. G. Turner, and E. W. M. Wonnacott, *Associates*.

ARCHITECTS' REGISTRATION BILL.

The notice previously given by Mr. G. A. T. Middleton [*A.*], and published in the *Supplement* No. 15, convening the Meeting, was read as follows:—"(1) to draw attention to the fact, That "the Council have petitioned against the Architects' Registration Bill, 1893, without specific "authority from the members to do so; (2) to "move, That before the Council take action in a "measure of such great importance to architects "as the Architects' Registration Bill, the members should be fully consulted thereon; (3) to move, That the Architects' Registration Bill, 1893, be "printed *in extenso* and sent to every member of "the Institute, with a request that he read it "carefully; (4) to move, That two forms of Petition respecting the Architects' Registration "Bill be issued to each member of the Institute, "one praying that it be passed, and the other that "it be not passed, and that each member be requested to sign and return one or the other, but "not both, to the Secretary on or before 19th June "1893; (5) to move, That both these Petitions "be then forthwith presented to Parliament."

Mr. G. A. T. Middleton [*A.*], having drawn attention to the fact that the Council had petitioned against the Architects' Registration Bill now before Parliament, moved, and Mr. J. A. G. Knight [*A.*] seconded, "That before the Council take action in "a measure of such great importance to architects "as the Architects' Registration Bill, the members "should be fully consulted thereon," which motion was put and lost, five members voting for it.

Motion No. 3 having also been proposed by Mr. Middleton, and seconded by Mr. Robert Williams [*A.*], the same was put and lost, five members voting for it. The other Motions (4 and 5) were then withdrawn, and the proceedings having been thus brought to a close, the Meeting separated at 10.30 p.m.

LEGAL & PARLIAMENTARY NOTES.

Constructing a New Street.

BROMLEY LOCAL BOARD *v.* LLOYD.

This case, which was heard before Mr. Justice Wills (without a jury), illustrates the uncertainty which, even now, attaches to by-laws apparently clear. The same uncertainty has been found to exist in London, in cases already reported by me in this *Journal*, in which the London County Council were the restraining parties. The present case is made sufficiently clear by the report of it which appeared in *The Times* of 24th February last.

The plaintiffs in this action claimed an injunction to restrain the defendant from constructing a new street, the plans for which they contended did not comply with the requirements of the by-laws of the Local Board in force in the district. The by-laws in question are as follows:—

"4. Every person who shall lay out a new street "which shall be intended for use as a carriage road "shall so lay out such street that the width thereof "shall be 40 feet at the least."

"8. Every person who shall construct a new street "shall provide at one end at least of such street an "entrance of a width equal to the width of such street "and open from the ground upwards."

In September 1891, the defendant submitted to the plaintiffs a plan of a new street which he proposed to make, the only access to which was to be by a narrow *cul de sac* called the White Hart Lane. That plan was disapproved of, and the defendant submitted a re-amended plan, by which the new street was to be 40 feet wide throughout, and the White Hart Lane to be 40 feet wide at the part immediately adjacent to the new street. This was to be effected by throwing in a strip of defendant's own land. The remainder of the White Hart Lane, for a distance of 120 feet from the defendant's land to the Market Square, Bromley, was to remain as before only 10 feet wide. This plan was disapproved of. The defendant thereupon gave notice that he intended to lay out the street according to the re-amended plan, and the plaintiffs issued the writ in this action, and moved the Court of Chancery for an interim injunction. The motion was heard before Mr. Justice Kekewich, who gave judgment on March 25, 1892, granting the plaintiffs an interim injunction. The action was then transferred to the Queen's Bench Division, and came before his lordship for trial.

Mr. Daniel Jones, for the plaintiffs, contended that the entrance to the proposed new street referred to the mode of access to the new street—namely, the White Hart Lane, which was not 40 feet wide. In "Hendon Local Board *v.* Pounce" (42 Ch. D., 602), Mr. Justice North so held upon facts similar to the present case.

Mr. Finlay, Q.C. (Mr. Hadley with him), for the defendant, contended that the plan complied with the requirements of the by-laws; that the White Hart Lane was a public highway used by the public for many years. In support of their contention they called evidence to show that the parish had repaired it over 40 years ago, and when the Local Board came into existence the Board metalled the road; and that people in occupation upon the right and left of it had been in the habit of using it with carts, &c. It was also shown that in the conveyance of a piece of land abutting upon the White Hart Lane no express right of way was given.

Mr. Justice Wills, in giving judgment for the defendant, held that the entrance meant a practicable way into the street; that the language of the report in the case of "Hendon Local Board *v.* Pounce" did not sufficiently indicate what it was Mr. Justice North did decide; that from the evidence showing the repairs by the parish and Local Board, and the user by the public of the White Hart Lane, he concluded it was a public highway; and that the defendant's plan ought to have been sufficient to satisfy the Local Board.

Judgment was given for the defendant, with costs, the interim injunction to be dissolved.

Rights of Light.

VALLENTIN *v.* LETHBRIDGE.

In the *Journal*, 2nd February, p. 184 *ante*, I referred to the case of "Lane *v.* Kelly and another," in which Mr. Justice Wright laid down important views on the question of diminished light. A part of this case of "Vallentin" having reference also to the question of diminished light, was tried before Mr. Justice Wright, and reported in *The Times* of 14th April last. The following words used by the learned Judge should be borne in mind by architects when dealing with this troublesome part of their business. "He (the learned Judge) was "even inclined to think that the light had been "improved, but the question was not whether a "portion of the light had been interrupted, but "whether enough light had been left for the ordi-"nary occupation of the premises; whether there "was still such a quantity of light as such build-"ings usually received in London." Mr. Justice Wright further stated that he considered that the plaintiffs had failed to prove that their light had been materially interfered with.—WM. WOODWARD.

Ancient Burmese Buildings.—It is stated that an archæological survey of Burma is to be undertaken during the cold season of 1893–94, and that Mr. F. O. Oertel [*A.*], of the Department of Public Works, recently quartered at Allahabad, is one of the officers chosen for the work.

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THE JOURNAL OF PROCEEDINGS OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

VOL. IX. NEW SERIES — No. 17 — 22 JUNE 1893

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SESSIONAL NOTES.

Sessional Papers, 1893-94.

The Literature Standing Committee are very desirous of obtaining a good supply of Papers for next Session, and though they have succeeded in securing valuable manuscripts for the earlier Ordinary Meetings, in December 1893, and February and March 1894, Papers are still required for April, May, and June of next year. The fact that, after October, a Paper read at a Monday's General Meeting will be published in its entirety and with all its illustrations on the subsequent Thursday morning, renders it absolutely necessary that sufficient Papers for the complete Session should be in the hands of the Committee before the Session opens, or at least before the close of the current year. With this object in view, the Committee venture to suggest to members the desirability of preparing and presenting Papers, for delivery to the Institute in 1894, on (1) The Architectural Methods of the Italian Sculptors of the 14th Century; on (2) The Principal Works of the Leading Architects of the 16th, 17th, and 18th Centuries; on (3) Architectural Pupilage; on (4) Methods of Reproducing Architectural Drawings; on (5) House-planning for Towns, its Restrictions and Possibilities; and on (6) Shop Architecture. All Papers read at a General Meeting of the Institute become the property of the corporate body, and in future they will be registered as such at Stationers' Hall, prior to the reading, after their definite acceptance by resolution of the Council.

The Progressive Examinations.

It has been already definitely announced [p. 341 *ante*] that the first of the "Final" Examinations, being the third and last stage of the Progressive series qualifying (1) for registration as *Probationer*, (2) as *Student*, and (3) as candidate for Associateship, will be held in the Spring of 1895. The time-table of this new "Final" Examination has been for a considerable period under discussion, and the Board of Examiners have recently drafted a scheme which, it will be noted, is an extension or development of the arrangements still in force for the Examination, founded in 1882, for candidature as Associate. At present the single Qualifying Examination commences on a Monday at 2 p.m., and terminates on the subsequent Saturday—the Written and Graphic portions of that Examination occupying three days and a half. The new "Final" is to begin on a Friday at 10 a.m., and terminate on the next Friday at 6 p.m. The present hours are from 10 a.m. until 5.30 p.m.; but it is proposed to fix them from 10 a.m. until 1.30 p.m. and from 2.30 p.m. until 6 p.m., thus making two sittings of three and a half hours each, with an

interval of one hour for refreshment. The increased importance attached to "Design" has obtained for this division two entire days, Friday and Saturday being devoted to it, as will be seen below:—

THE NEW FINAL EXAMINATION TIME-TABLE

To Qualify for Candidature as Associate R.I.B.A.

NOTE.—The written answers in Divisions 2, 4, 5, 6, 7, 8, and 9 must display attention to literary style and accuracy, and *carefully* drawn sketches must be introduced, in order to make clear the extent of the knowledge of the *Student*. In Division 7 the sketches must be *exactly* drawn, as for working purposes. At least *half* the maximum number of marks must be obtained in each Division.

WRITTEN AND GRAPHIC EXAMINATION.

FRIDAY.

Hours.	Division.	Maximum No. of Marks.
10–1.30.	1.—Design of a building of moderate dimensions, or a portion of a more important edifice, to be made from particulars given, with details of construction and ornament. The drawings on this day to comprise plans, elevation, and section, to a scale of $\frac{1}{8}$ inch to the foot. The subject will be communicated in general terms to the *Student* at the same time as his admission to the Examination.	
1.30–2.30.	*Interval.*	
2.30–6.	Design continued . . .	150

SATURDAY.

10–1.30.	1.—Design continued, comprising on this day the constructional and artistic details of the design drawn on Friday.	
1.30–2.30.	*Interval.*	
2.30–4.	Design continued. Details .	125

MONDAY.

10–1.30.	2.—The History of Architecture, to be illustrated by sketches. The leading characteristics, history, and development of the principal styles of Architecture. Particulars of celebrated buildings and their Architects. The special characteristics and history of any one period selected by the Student, which may be— (*a*) Architecture of Italy or France from the tenth century to the end of the fourteenth century. (*b*) Architecture of Italy or France between 1400 and 1800 A.D. (*c*) Architecture of England between 1100 and 1550 A.D.	

WRITTEN AND GRAPHIC EXAMINATION—*continued.*

MONDAY—*continued.*

Hours.	Division.	Maximum No. of Marks.
	(*d*) Architecture of England between 1550 and 1800 A.D. . . . . The sketches must be carefully and accurately drawn, illustrating well-known buildings in plan, elevation, and section.	100
1.30–2.30.	*Interval.*	
2.30–6.	3.—Architectural features, Mouldings, and Ornament— (*a*) Characteristic of architectural styles generally. (*b*) Characteristic of the special style selected by the Candidate* . . Great importance will be attached to the precision and accuracy of these sketches, and the artistic power displayed.	150

TUESDAY.

10–1.30.	4.—The principles of Hygiene in relation to Architecture. Materials and construction relating to health, drainage, water supply, ventilation, lighting and heating . .	100
1.30–2.30.	*Interval.*	
2.30–4.	5.—Materials. The nature and properties of Building Materials: their decay, preservation, and quality, and their application in building . .	75
4–6.	6.—Strength of Materials. The principles of stresses and strains; formulas for their calculation, and their graphic determination . . .	75

* In this work the *Student* will be expected to show a thorough acquaintance (graphic and historical) with the style and period selected by him, also a competent acquaintance with the details of other styles. The words "architectural style" may be understood to imply Greek, Roman, Byzantine, Romanesque, one period of Gothic (English, French, German, or Italian), Renaissance, or one of the transitional varieties.

WRITTEN AND GRAPHIC EXAMINATION—*continued.*

WEDNESDAY.

Hours.	Division.	Maximum No. of Marks
10–1.30.	7.—Construction. The principles of Construction and their application in practice to foundations, walls, retaining walls, arches, vaults, girders, floors, roofs, &c.; and constructive details in all trades. Shoring, underpinning, and dealing with ruinous and dangerous structures . .	100
1.30–2.30.	*Interval.*	
2.30–4.30.	8.—Specifications and estimating. A specification of the work in two or more trades. The manner of specifying for the other trades. The measurement, and valuation of the cost of Buildings and Materials . . .	75
4.30–6.	9.—Professional Practice. The general conditions of contract. The relative position, duties, and responsibilities of client, architect, and builder.	

WRITTEN AND GRAPHIC EXAMINATION—*continued*

WEDNESDAY—*continued.*

Hours.	Division.	Maximum No. of Marks.
	9.—The Legislative Enactments (*cont.*) relative to Building . .	50
	Total number of marks .	1,000

ORAL EXAMINATION.

THURSDAY.

10–1.30.	The Oral Examination.
1.30–2.30.	*Interval.*
2.30–6.	The Oral Examination continued.

FRIDAY (*if necessary*, SATURDAY).

10–1.30.	The Oral Examination continued.
1.30–2.30.	*Interval.*
2.30–6.	The Oral Examination continued.

*** Any *Student* who for special reasons is permitted to divide the Examination, may do so by sitting for Divisions 1, 2, 3, and Divisions 4, 5, 6, 7, 8, 9 on different occasions; but *Students* permitted to adopt this course must sit for the other Divisions in the Examination next following, and they will be excluded from competing for the Ashpitel and other Prizes.

Proposed Congress, Edinburgh.

The Council have received an intimation, which they are glad to make public, that the Annual Congress of the British Institute of Public Health will take place this year in Edinburgh, from Thursday 27th prox. to Tuesday 1st August inclusive, and be held under the auspices of the Lord Provost and Magistrates of that city. The Congress will be arranged in three Sections:—(*a*), Preventive Medicine; (*b*) Engineering and Building Construction; (*c*) Chemistry and Climatology. The subjects for discussion will include the following and kindred matters:—The Public Health Aspects of the Housing of the Working Classes; the Disposal of Refuse; the Water Supply of Urban and Rural Populations; the Pollution of Rivers; the Treatment of Sewage; the Certification of Sanitary Inspectors; the Registration of Plumbers; the Acquisition of Sites for Fever Hospitals; the Ambulance System; the Certification of Deaths; the Treatment of Outbreaks of Infectious Disease; and the Working of the Sale of Food and Drugs Act. The Council of the British Institute of Public Health hope that the Royal Institute of British Architects and other like bodies will appoint delegates to take part in the Congress.

Wood Carvers of London.

A deputation from the Executive Committee of the Wood Carvers of London received by the Council of the Institute at their Meeting of the 19th inst., laid before them some facts in respect to (1) the extensive sub-letting by contractors of wood carving, and (2) the importation of foreign work represented as English, which the deputation felt must be done without the knowledge or consent of architects. The deputation did not attempt to enter upon the economic question, but argued that an inferior quality of work resulted from the practices to which attention was directed; and the deputation insisted upon the desirability of an architect always inserting in the contract a prohibition against sub-letting, and also of specifying the name of the carver to be employed. But this was explained to be the almost invariable custom of the profession, and several members of the Council urged that many of the cases cited did not come under the notice of architects at all, that in fact what the deputation asked for was already done by the majority of architects. Indeed, a few years ago the subject, or at least a part of it, was very carefully treated by Mr. Edwin T. Hall in an article published in this Journal [Vol. VI. 1890, p. 392].

REVIEWS. XI.

(25.)

PASTIMES OF TIMES PAST.

Games Ancient and Oriental, and how to play them. Being the Games of the Ancient Egyptians, the Hiera Gramme of the Greeks, the Ludus Latrunculorum of the Romans, and the Oriental Games of Chess, Draughts, Backgammon, and Magic Squares. By Edward Falkener. 8o. *Lond.* 1892. [*Longmans, Green, and Co.*]

If it be true that the continuity of a stream depends upon the continuity of its banks, the observation will apply not less to rivers metaphorical than to rivers geographical. It will apply to the greatest river of all—the stream of human history, whose identity of sequence is surely evidenced not merely by the incontestable but uninteresting fact that if men kept their pedigrees as they should, you could trace every name in the directory up to Adam, perhaps to the ape, or even further. This is not enough for us, the evidence of this sequence is lost, and the bare fact that every son has a father loses interest as a proof of continuity beside the poetic charm of the more imaginative but equally historical process which shows us how the banks of this our human stream are crowded by the circumstances of man's existence, and how its very identity as a stream is proved by the fact that those banks, those accessories of human life which keep it in its channel, are unbroken, continuous, identical. Is it merely fanciful to say that as we look up the ages we see the shores of this great river formed on the one hand by the essential necessaries of human life, and on the other by those unnecessaries which seem no less essential? Granting the propriety of my image for the moment, we should range on the one side all those arts and trades, including architecture and building, which are direct products of the natural necessities of civilisation; on the other we should place the long series of devices by which man's leisure in all ages has been entertained and his spare mental energy exercised. We know what continuity means on our side of the water—I mean in the architectural sphere. We know how the whole historic range of our art is no mere series of unconnected inventions, but a most gradual evolution—a chain every link of which is inseparably and necessarily connected with those which precede and follow; but strict as the continuity is in architecture, what is it in comparison with the startling conservatism of mankind in the simple matter of those "parlour" games which are the subject of the book now under notice? How can we boast of the antiquity of architectural methods in face of the consideration that were Queen Hatasu (who lived about 1600 B.C.) to visit the earth again and to buy a draughtboard tomorrow in the Lowther Arcade, she would in all probability be familiar with its use, though she might not play upon it a game identical with ours.

She was no less an architect than a player of games, this handsome lady-Pharaoh; and her buildings are still standing; but sentiment lingers with a greater romance about the bit of draughtboard which was exhibited at Manchester in 1887, than over her great temple in Western Thebes and her obelisks at Karnak. To the faithful Egyptian, as we are reminded in Mr. Falkener's book, death did not mean the abandonment of the pastimes of leisure; indeed, a corpse on its committal to the tomb took with it a complete outfit for the gentler forms of recreation, and it is to this touching provision for the amusement of the departed that we owe much of our knowledge of the games of ancient Egypt. I say "our" knowledge, but how few of us share a fraction even of the knowledge which Mr. Falkener sets forth in his book. His subject, though essentially one of quite general human interest, is none the less a necessarily abstruse one; and it is to the author's credit that, though the writing of his work involves, besides a groundwork of enthusiasm, a keen analytic brain and a knowledge of several extinct languages, he has written it in a way which may be "understanded of the people." As I have hinted above, the absorbing interest of his subject to a student rather of human nature than of games, lies in the tracing of an individual game or group of games from an early date to modern times. The antiquity and the universality of Chess is a matter with which we are mostly familiar; not less interesting are the steps by which the Ludus Latrunculorum of the Romans is connected with the Egyptian game of Tau, both being similar as regards apparatus though not identical with our modern draughts. The Egyptian Atep, of the nature of which the pictorial representations leave little doubt, is found to correspond with that strange, and to foreigners inexplicable, pastime of finger-counting (or rather guessing) with which the modern Italian peasant makes the byways resound.

Mr. Falkener's book does not profess to deal exhaustively with the subject of ancient games. The venerable sport of knuckle-bones is only introduced in a passing allusion, and it still remains for a Fellow of this Institute, who I believe has the matter in hand, to associate the mystic chalkings over which London damsels play hop-scotch with the plan of the classical basilica!

In conclusion, some attention should be drawn to the fact that Mr. Falkener has made his gift the more complete by sending with his book the entire apparatus necessary for the playing of "Four Egyptian games 5,000 years old."

PAUL WATERHOUSE.

(26.)

SEFTON.

Sefton. A descriptive and historical account comprising the collected notes and researches of the late Rev. Engelbert Horley, M.A. (late Member Historic Society of Lancashire and Cheshire). [*Rector* 1871–1883.] *Together with the Records of the Mock Corporation. By W. D. Caröe, M.A. (Cantab.), F.R.I.B.A., &c., and E. J. A. Gordon.* [*London: Longmans, Green, and Co.* 8o. 1893.]

These notes are published as a tribute to the memory of the late Rector, who died in 1883, by the Editor, a Fellow of the Institute, who ten

years since assisted his reverend friend in collecting materials for an account, which he then had in contemplation, of the church; and for the present publication was able to secure a partner whose assistance has proved invaluable in preparing the Rector's notes handed over to Mr. Caröe. Sefton church has long been familiar to the architect, from the careful publication in 1822 of the plates etched in outline by Richard Bridgens, of Liverpool; these have been made use of in a reduced form for this publication.

Fragments of the earlier fabric, re-used by the Perpendicular builders, appeared in the restorations or cleansings, and its local sandstone masonry is thus distinguishable. The well-preserved "masons' marks" of the sixteenth century are noteworthy as showing the still adopted devices which reach as far back as the Norman dynasty. The church is dedicated to St. Helen, and is remarkably rich in its screens, bench-ends, and the peculiar alphabet.* The chancel, revestry, south aisle, pillars on each side of the nave, are among its latest portions, and are generally said to be the work of Antony Molyneux, rector from 1509 to 1537; but now it appears probable that he only brought to completion work begun by a predecessor, James Molyneux, about 1500. The north (is not this an error for south?) porch has a parvise, the window to which has its labels continued entirely round it, characteristic of Lancashire work. The bench-end alphabet, curiously designed, and complete with the exception of the letters W, X, and Z, are part of the exuberance of fancy displayed in the wood carvings—everywhere variety and quaintness of expression are seen, as though the carvers had been thoroughly enjoying themselves in their work while producing such diversity of designs. The date of the carved woodwork may be set down roughly as 1520-35. It is observed that the same work at Lydiate Hall, two and a half miles away, is dated 1514, and the same hand evidently worked at both, as many of the designs and details are exactly the same. The elaborately carved rood-screen, with its fine canopy, were extensively repaired about 1820. The screen of the south or St. Mary's chapel, and that of the Blundell (of Crosby) chapel, which is of similar work to the Sefton pew, are both much mutilated, and have modern work. The latter now contains the finest brass in the church, that to Margaret Bulcley, a Molyneux, whose second husband was William Buckley of Beaumaris. The author writes: Standing in the doorway of the rood-screen, the imposing size of the choir and the elaboration of the woodwork are remarkable. There is no structural division to mark the choir, which is brought forward into the nave, and only separated from it by the screens; the sanctuary alone is thrown out from the main body of the church. Sixteen stalls raised on stone, pierced with quatrefoils, are quite unrivalled in any church for many miles round.

* In a church in the West of England is another instance of the alphabet, showing that the carver could not read, for some of the letters are reversed.—W. P.

The inventory of the goods, &c., is given; while the parish register, with its "Baptizati," begins as late as February 7, 1597; the "Connubia" July 21, 1600; and the "Sepulti" July 13, 1600. A few extracts from the accounts may be given; they show that in 1751 the steeple was repaired; in "1752 ffor 2 muggs to whitewash with, 6*d.*;" "1761, spent when view'd ch'h before 'twas "whitewasht, 2*s.* 0*d.*;" and "1765, Paid Mr. "Hilton for cleaning the church after the plais-"terers had finished, 6*d.*" "1768, paid for a mog "for wight wash, 1*s.* 0*d.*" In 1802 "taking down "part of the Steeple and rebuilding the same, as "by agreement, £226;" "paid to the repairs, "£21 5*s.* 10½*d.*;" "advertising the Church Steeple, "£0 15*s.* 0*d.*;" and "Spent at letting the jobb, "£1 8*s.* 6*d.*," so that the injury done to the spire must have required an outlay of £250 to repair it. These old registers always afford interesting matter to the antiquary and philologist.

Two-thirds of this carefully-prepared volume are devoted to printing in full the records respecting "the Mock Corporation of Sephton," together with the late rector's, and a few added, notes and explanations. The earliest date in connection with its history appears on the mace—1764—the gift of F. Cust. It may amuse the student to learn that among the mock titles occur those of "Translator of the Oriental Languages;" "Bra-"zier and Tinker General" was applied to Mr. A. Molineux; "Window Peeper" to Mr. Richardson; "Statuary" to Mr. Westmacott;* "Archi-"tect" to Mr. Chas. Eyes; and so on for twenty-eight dignitaries. The records end October 22, 1797; and no information is forthcoming as to how long the club continued in existence.

One of my earliest associations with architectural study relates to Sefton church; for the plate of the elaborately carved screen of St. Mary's chantry recalled to me the pleasure of having received a silver medal from the Society of Arts, the then greatest encourager of drawing and design in all its branches, and awarded to me for a copy of the screen, enlarged from a plate in the work by Bridgens before mentioned, so that the request to review Mr. Caröe's book proved to be more than usually agreeable. All archæologists will gratefully thank the Editors for this volume of five hundred pages, so well compiled and illustrated, as well as the well-known firm of publishers by whom the volume has been presented to our library.—Wyatt Papworth.

(27.)

INDIAN PROGRESS REPORTS.

Two Archæological Progress Reports from India have been received. One is from the North-West Provinces and the other is from Bombay. These are not full accounts of explorations or discoveries, but are merely the Reports sent in to give the Government information regarding the ground that has been gone over, and of the work that has been accomplished by the survey parties. The drawings that have been made, as well as the photo-

* Was this the well-known R.A. ?—W. P.

graphs, are given in a tabulated form. The Reports deal with the labours of the departments in 1891 and 1892. The Bombay document is by Mr. Henry Cousens, M.R.A.S., who is Superintendent of the Archæological Survey for Western India. He reports that his party made over 70 drawings and about 100 photographs during the cold season of 1891–2. In the hot season of 1891 the staff were employed at Poonah, inking in and preparing 68 sheets of drawings by photo-lithography. These were the result of a previous tour in North Gujerát, Ahmednagar, Bijápur, and Satrunjaya; and the drawings for the remains in his Highness the Gáikwár's northern districts were completed. The MS. to accompany these, which has been the work of Mr. Cousens, has also been written and sent home to Dr. Burgess, who will edit the volume which contains the whole. The tour of 1891–2 is represented on a sketch map, and may be roughly described as having covered a space above the Ghats extending from Poonah to the Tápti, and branching off to the north-east in the direction of the G. I. P. Railway, as far as Changdeva and Chartan. The object of this tour was the survey principally of the mediæval Brahminical temples, and the Report of Mr. Cousens, although pretending to be little more than a catalogue of places visited, yet contains much that is interesting in the short notices of the localities on the route. As these will all in due time be published, any notice of them must be deferred till they appear in a full and complete form.

In the Report from the North-West Provinces and Oudh, Mr. Edmund W. Smith details the work done at Fatehpur Sikri during 1891–2, and also gives a summary of what has been done there since 1886, when operations were begun. The following have been prepared and are published, or are ready to appear: 1. The Sharqi Architecture of Jaunpur [published]. 2. Monumental Antiquities and Inscriptions in the N. W. P. and Oudh [published]. 3. Brick Architecture of the Middle Ages in Upper India. 4. The Chandella Architecture of Bundelkhand. 5. The Patan Architecture of Badaon, Kalpi, and Irich. 6. The Great Chaturburj Temple of Orcha. The following are under preparation: 7. Monograph on the Great Jaina Establishment at the Kankâlî Tilâ, Mathurâ. 8. Monumental Antiquities and Inscriptions in Central India and Râjputâna. 9. The Moghal Architecture of Fatehpur Sikri. 10. Monograph on the ruins of Adhichhatrâ. Mr. Smith also reports that 222 drawings have been made to illustrate Fatehpur Sikri, and, as they are principally in pen and ink, their publication could be commenced. Mr. Smith gives a large plan of Fatehpur Sikri, which shows what has been accomplished, and what there is still to do. As this place contains the remains of one of the good periods of Mohammedan Architecture, the publication of such a plentiful mass of illustrations will form a most valuable work.

This Report also contains a communication from Dr. Führer on his explorations on an extensive series of mounds near Râmnagar, in the Bareli District of the Rohilkhand Division. These vast ruins represent the capital of what was at one period the mighty kingdom of Northern Pânchâla. This place has been known as *Ahikshêtra*, *Ahikshatra*, or *Ahichchhatra*. Ptolemy mentions it as Ἀδισάδρα, and inscriptions have been found on the site with the name of *Adhichhatra*. Bricks seem to have been the principal building material in this ancient city, which agrees with the accounts of the old Greek writers. Dr. Führer writes that "its interior is studded "with the foundations of ancient brick buildings, "such as temples, palaces, and dwelling-houses. "Its curtains and bastions are mere crumbling "banks of brick." He describes the bricks as being ornamented and "carved," and that "the "variety of patterns is infinite." One temple had scenes from the life of Buddha with numerous figures in terra-cotta; the ornamental bricks had been carved or chiselled after they were burnt. The bricks are in some instances large; in one temple they were 18 inches × 12 inches × 3 inches. When the volume on the explorations at this site appears, the details of the early brickwork of this part of India will have a special interest. Perhaps the most startling announcement in Dr. Führer's Report of Progress is that he has come upon "a large two-storied Saiva temple, built of carved "brick, and dating from the first century B.C." We may assume that an authority such as Dr. Führer is recognised to be may be right in this preliminary statement, and that his excavations at Adhichhatra will throw new light not only on the temples, but also on the mythology and worship of India. This is foreshadowed in some of his remarks, where he gives a few of the names found on the inscriptions, and says: "Their "historical value consists therein that they form "a link in the chain of evidence which enables us "to trace the existence, nay, the prevalence of "Vaishnavism and Saivism not only during the "second and first centuries B.C., but during much "earlier times, and to give a firm support to the "view now held by a number of Orientalists, "according to which Vaishnavism and Saivism are older than Buddhism and Jainism."

WM. SIMPSON.

(28.)

SOME AMERICAN JOURNALS.

1. *Proceedings of the Twenty-sixth Annual Convention of the American Institute of Architects, held at Chicago, October 20th, 21st and 22nd*, 1892. *Chicago* 1892.

The American Institute of Architects appears to have been well occupied during its three days' meeting last year, and the official account forms a largish book. There were present at the Convention, according to the list in the *Proceedings* (which however is described as "partial"), 152 members, under the presidency of Mr. Edward H. Kendall, of New York. On the first day, after the President's opening address, which dealt chiefly with the position occupied by the various local branches of the Institute with regard to the autho-

rities of their respective States and cities, reports were read from the Board of Directors, the Treasurer, and the Committees on the Conservation of Public Architecture and on Competitions. From the Directors' Report we learn something of the constitution of the Institute, and the local "Chapters" into which, owing to distance and diversities of State customs, it is divided. The Institute itself, which numbers 475 Fellows, is not an ordinary local society, but is, so to speak, an impersonal organisation, formed by the aggregation of twenty-three such societies, somewhat in the manner of a university and its colleges; each of these separate societies is called a "Chapter" of the Institute, and these often correspond to a State of the Union, but in some States, *e.g.*, New York, there are two Chapters. But the relations of the Institute, the Chapters, and the Fellows, are somewhat complicated and difficult to define, insomuch that the Directors, noting that among other anomalies there exist Chapters of whose members but few are Fellows of the Institute, while the Institute has many Fellows who are not members of Chapters, recommend the appointment of a Committee to revise the Constitution and By-laws of the Institute, with a view to place matters on a more satisfactory footing. The report of this committee (the members of which were forthwith nominated) should prove of much interest in this country also, now that all questions concerning the federation of Architectural Societies are so keenly discussed. The rest of the proceedings was chiefly of a "private-business" character, and do not call for comment here, but mention should be made of one Paper of a different description, Mr. Baumann's ingenious and interesting essay entitled "Thoughts on Style," which expounds in metaphysical fashion some of the newest ideas as to the nature and evolution of that most subtle and hard-to-be-comprehended abstraction.

2. *Transactions of the Boston Society of Architects. Boston* 1891.

3. *Massachusetts Institute of Technology, Annual Catalogue*, 1892–1893. *Boston* 1892.

4. *Technology Quarterly, and Proceedings of the Society of Arts. Boston, October* 1892.

Several good Papers are contained in the Boston Society's *Transactions*. Taking them in the order of their appearance, there should be mentioned "The Trap-Vent Law," a very reasonable protest against the needless multiplication of vent-pipes enforced by the Boston municipal regulations, with some sound remarks on sanitary plumbing generally; "The Compensation of Architects," a thoughtfully written discussion of the question, How should an architect be paid?—summing up decidedly against the percentage system; "The "Origin of the Cruciform Plan of the Mediæval "Cathedral," an interesting account of the development of church-planning, in the earlier part of which the author rejects the theory of the basilican origin of the Christian church, therein agreeing with Prof. Baldwin Brown so closely, that it is rather surprising to find no mention at all of his *From Schola to Cathedral*, in which the same line of investigation and argument was fully worked out some seven years ago; "Spanish "Mediæval Architecture," a brief but sympathetic notice; and "Landscape Gardening in its rela-"tions to Architecture," a somewhat original plea for the employment of the "landscape-architect" —a sort of superior landscape-gardener, under whose directions not only the ordinary gardener, but the ordinary architect also, should work together in humble subservience!

Besides its Society of Architects, Boston possesses what is probably the most completely organised system of architectural education yet existing in the Department of Architecture of the Massachusetts Institute of Technology. Its "Curriculum" was the subject of a recent article in *The R.I.B.A. Journal* [p. 81 *ante*], wherefore it must suffice now to say that the new Catalogue (or Kalendar, as we should call it) proves that both the Institute and the Department of Architecture continue alike to flourish and to extend; and the latter is to be congratulated on having just taken possession of the new building specially erected for its accommodation.

The remaining Bostonian publication, though containing several ably-written scientific Papers, has nothing in the present issue of special architectural interest.

5. *The Architectural Record. Vol.* II. *No.* 4. *New York* 1893.

The *Record* is a publication to which there is nothing analogous in this country, but as two of the articles in the current number are by Englishmen, it has something of an international character. This is a good number both as to illustrations and letterpress. Mr. W. H. Goodyear continues his papers on the evolution of ornament with one under the title, "Are conventional "patterns spontaneously generated?" and whether we agree or not with his determination to see a reminiscence of the lotus in almost every form of ornament (on which subject "The Grammar of the "Lotus" in *The Saturday Review* of 26th March 1892 should be referred to), we must certainly be grateful for his industry in collecting such a valuable series of examples of ornamental forms, from even the uttermost parts of the earth. Mr. Banister Fletcher, Jun., follows with a eulogium on Italian Early Renaissance Sculpture, and some critical remarks on English sculptors of the present century. One of Professor Aitchison's Royal Academy lectures on Byzantine Architecture is reprinted, but suffers much from the lack of any illustrations. Other articles on Modern Office Buildings, of the sky-scraping kind now rising in all the great cities of the United States; Architectural Aberrations, in which a building of the class just mentioned is pilloried, in a fashion undoubtedly amusing, but which amongst us would be considered almost libellous; The Second Spring, which deals with recent American stained glass; and a chapter of a serial novel.

ARTHUR S. FLOWER.

(29.)

SOME CONTINENTAL JOURNALS.

Annales de la Société Académique d'Architecture de Lyon. Tome X. Exercice 1889-1890. *Lyon,* 1891.

It may seem late to be only now noticing for the first time an annual publication dealing with the years 1889-90, but this volume has only just been presented to the Library; still, though somewhat long in coming, it quite deserves a welcome, containing, as it does, much interesting matter, and being, moreover, very handsomely printed. The Lyons Society of Architecture, of whose session 1889-90 these "Annales" formed the record, was founded in 1830, and claims to be the oldest institution of the kind in France; it has regularly published its Proceedings since 1867, and at present consists of 54 ordinary members, all in practice in the city, besides several classes of honorary members. Among the contents of the present volume are particulars of the yearly prize-competitions of the Society, which are open to all architects of any country; two subjects are always given, a design for a new building, "Cours d'Architecture," and a set of measured drawings of an old one, "Concours Archéologique," the distinction in the titles being noticeable. The Secretary, M. Rogniat, follows with a report on the recent work of the Society, beginning with this alarming statement:—"La profession "d'architecte, honorée chez tous les peuples, voit "faiblir chaque jour la considération qui lui est "due!" and going on to lament that "under the "repeated blows showered upon them, our art "and our profession, left alone without any pro-"tection, without any effective and practical "means of defence, are being swept away into "deeper and deeper discredit." The Lyons Society, however, are not going tamely to submit to adverse circumstances; their Secretary ends with the confident hope that "our indefatigable "President may, during the coming session, see "his efforts in the great work which he has "undertaken for the honour and dignity of "French architectural art, crowned with suc-"cess."

Some useful decisions on knotty legal points are given, in the form of question and answer, by a committee analogous to our Practice Committee, but bearing instead the grimly significant title of "The Committee on Litigation." Another section worthy of mention consists of well-written biographical memoirs, each with a full-page portrait, of all members of the Society who have died during the year. But the article of most general interest is one on the fall of the central pier at Seville Cathedral in 1888, communicated by M. A. Coquet, and embodying a full translation of the official report of Señor D. Adolfo Casanova, the cathedral architect. This Paper (to which it would be impossible to do justice in a brief abstract) narrates very minutely everything which could be collected concerning both the predisposing causes and the actual circumstances of the disaster, and is of great value as an exhaustive account compiled by the persons who had the best opportunities for thorough investigation.

Annales de la Société d'Archéologie de Bruxelles Tome VII., Livraison 2. *Bruxelles* 1893.

The present number of the Proceedings of the Brussels Archæological Society is mainly devoted to articles of a purely historical character, but it contains one Paper on an interesting architectural subject, "Un Ancien Monument Gantois," by M. E. Michel. It is a description of the old store-house known as the "Etape aux Grains"—in Flemish, the "Stapelhuis"—which forms one of the quaint line of buildings which gives such a picturesque charm to the Quai aux Herbes at Ghent. Its venerable but dilapidated front, somewhat thrown into the shade by its newer and richer-looking neighbours, does not usually attract the attention which, according to M. Michel, it most justly deserves. Nearly all writers on the antiquities of Ghent, though certainly crediting this building with an antiquity superior to that of its neighbours, have described it as having been built in the year 1324; therein following one after the other, without question, a simple documentary blunder, the origin of which has lately been exposed by M. van Duyse in his *Gand Monumental et Pittoresque.* M. Michel, however, as the result of a thorough examination of the building itself, has no hesitation about ascribing its construction to the eleventh century at the latest, and thinks it may very probably date even from the preceding one, thus being of an age which renders it unique in Belgium, if not, indeed, in any northern country. "It is," he says, "the only public building in the "Romanesque style which exists in our country. "Moreover, as to Romanesque civil architecture, "I do not know of any other instances, besides "this building, but the Château des Comptes at "Ghent and some houses at Tournai." Though altered here and there, both in later mediæval and in modern times, the Etape aux Grains still retains the bulk of its original fabric, including several characteristic features. The purpose for which during many centuries it was used is somewhat curious; the civic authorities possessed a right of taking, by way of toll, the fourth part of all corn carried through the city; this they stored in the "Etape," and at regular intervals disposed of by public sale, "in order to keep the price of "corn down to a reasonable figure." M. Michel's careful description is accompanied by a plan, two elevations, and some details; these are, unfortunately, drawn rather too small for clearness, but no doubt when the exceptional historical position of the building is once established, it will not have to wait long before receiving adequate illustration.

ARTHUR S. FLOWER.

The Royal Marriage.—The Office and Library of the Institute will be closed during the whole of the day and evening of the 6th prox. Loan books due for return on that date may be kept until the 7th prox.

No. 9, Conduit Street, Hanover Square, London, W.

PRESENTATION OF THE ROYAL GOLD MEDAL.

Address delivered by Mr. J. Macvicar Anderson, President, 19th June 1893.

Colleagues and Gentlemen,—For the third time it becomes my privilege, as your representative, to present the Gold Medal which Her Majesty the Queen graciously confers each year on such distinguished architect or man of science of any country as may have designed or executed a building of high merit, or produced a work tending to promote or facilitate the knowledge of Architecture in the various branches of science connected therewith. Two years since I was permitted to be the medium of conferring this honour on an eminent English architect, whose name and works are alike appreciated and known by all in the realm of Art—Sir Arthur Blomfield. Last year, no one who was present on the occasion can have forgotten the venerable Frenchman who accepted from my hands this gift of the Queen, or the striking address in which he testified his appreciation of the honour—an address which, as we were subsequently informed, had been perused with no ordinary interest by Her Majesty. It is gratifying to know that the prolonged and active life of Monsieur César Daly is still absorbed in the study of the art to which he has dedicated his powers, and ennobling to find octogenarian energy of such exceptional vigour devoted to the pursuit of a cause so commendable, and so well calculated to benefit society. I have thus experienced the happiness of presenting this Royal gift to an Englishman and to a Foreigner; but when I regard the proceedings in which we are now engaged, I feel some difficulty in deciding what is the nationality of the recipient of the Royal Gold Medal in 1893; for the distinguished architect whom it is at once our pride and our privilege to be permitted to honour can scarcely be defined either as an Englishman or as a Foreigner. He is no doubt an Englishman in the sense that he speaks the Anglo-Saxon language, but on the other hand he is not an Englishman in the sense that he was born, and finds a domicile, beyond the limits of the British Empire. He is no doubt a Foreigner in the sense that the scene in which he has achieved celebrity is not British soil, but on the other hand he is not a Foreigner in the sense that his nationality is so intimately linked to our own that we scarcely regard it as separate or distinct. What shall I say, then? If he is not an Englishman, and if he is not a Foreigner, there is but one word in our vocabulary that will truly describe his nationality—he is an American. Thus, whatever interest may have been associated with any or all of the forty-five eminent men on whom this Medal has been conferred, it is obvious that the present occasion has no parallel, and is indeed unique; for we are about to do honour to a citizen of the great Western Republic, one whose name we are proud to enrol as one of our Royal Gold Medallists—not only on account of high personal and professional merit—but also because he is the first American whose name will appear in that roll-call of illustrious artists. That the selection should this year have fallen on one who has designed the principal building in the great Columbian Exposition which attracts the world's sight-seers to Chicago at the present moment,

and which will hereafter associate the name of America with the most wondrous development that International Exhibitions have ever reached, or, perhaps, are ever likely to attain, is, to say the least, a singularly fortuitous coincidence. In honouring Mr. Hunt in recognition of his eminence, and of his works as an architect, we rejoice that we are thus able to pay a graceful tribute to the United States in the person of one of their most distinguished sons.

The Art of a new country is necessarily devoid of the native inspiration and guidance to be found in the history of centuries, and in ancient monuments, which are the glory of older countries. In the case of America, the possession of boundless resources and of illimitable wealth—the rapid development of which almost appals us —without the accompaniment of the experience of the past to guide lavish indulgence, presents a condition which in respect of Art is beset with temptation, and pregnant with danger, for without the curb of necessity, broad and easy is the road from luxury to extravagance, from liberty to licence. In such circumstances, who will be so bold as to define or limit the influence exercised, for good or for evil, by the early masters of the Arts in America? It cannot but be well, indeed, that the development of her architecture has been inspired by one possessing the refined taste, the educated judgment, and the cosmopolitan experience, of Richard Morris Hunt.

On the other side of the globe—even in these days of rapid intercommunication—men are born, rise to eminence, guide the interests of vast communities, reap great honours, and pass away, creating comparatively little stir in the popular imagination here at home. Hence, if the name of Mr. Hunt—although well-known to us—is not a household word in England to the same extent as it is in America, it is not because his achievements are less renowned, or his works less important, than those of men whose names are more familiar to the public here, but simply because we are geographically separated by the few thousand miles known as the Atlantic Ocean. I offer no apology therefore—unless it be to Mr. Hunt for referring in his presence to his life and work—if I venture to review some of the more prominent particulars of his career, which I feel sure cannot fail to be of interest to us all.

Mr. Richard Morris Hunt, born in Brattleboro, State of Vermont, in 1828, comes of an old New England family, and is the son of the late Honourable Jonathan Hunt, Member of Congress. On his father's death his mother removed to New Haven, and his education was commenced at French's school, and continued at the Boston High School and Latin School. In 1843—at the age, therefore, of fifteen—he accompanied his family to Europe, and entered a school at Geneva, commencing the study of architecture with Samuel Darier. From Geneva he went to Paris, and studied under Hector Lefuel, entering the École des Beaux-Arts in 1845. On leaving the École he travelled through Europe, Asia Minor, and Egypt, and on his return to Paris in 1854 he received from the French Government the appointment of "Inspecteur aux Travaux" on the new buildings uniting the Tuileries to the Louvre. His master, Lefuel, having, during his absence, succeeded Visconti as architect, he was put in charge of the Pavillon de la Bibliothèque, opposite the Palais Royal, and had the honour of making, under Lefuel, all the studies and full-size drawings of that Pavillon.

Having thus stored his mind with a knowledge of some of the celebrated monuments of the Old World, and acquired practical experience, he returned to America in 1855—at the age of twenty-seven—and spent about six months in assisting the late Thomas U. Walter at the Capitol of Washington. He then, at New York, commenced the practice of his profession, to which he has enthusiastically devoted his powers throughout an exceptionally busy and distinguished career.

Shortly afterwards he took an active and a prominent part in founding the American Institute of Architects, a body which now has Chapters in various parts of the United States. He succeeded R. M. Upjohn and Thomas U. Walter as President, and subsequently was elected President of the Institute under its re-organised

constitution. He was also for several years President of the New York Chapter of the American Institute.

Soon after commencing his career in New York, Mr. Hunt opened an Architectural Atelier for students on the French system, thus demonstrating in a practical form the native energy of his mind, and the influence which his European studies had exercised. Many of the leading architects in America to-day—such men as Professor William R. Ware, George B. Post, Frank Furniss, Henry van Brunt, Charles Gambrill, and others—were students in this Atelier; and it is natural that Mr. Hunt should feel proud of the eminent position they have achieved, for who will venture to say how much they owe to the teaching and inspiration they received in the first American Atelier!

In 1867 Mr. Hunt served as a Member of the Fine Arts Jury at the International Exposition in Paris; in 1876 he held the same office at the Centennial Exhibition in Philadelphia; and in this present year of grace he has served as a Member of the Fine Arts Jury of Selection, and as President of the Board of Architects, at the World's Columbian Exposition at Chicago.

In 1882 Mr. Hunt received from the French Government the decoration of the Légion d'Honneur, and was elected a Corresponding Member of the Institut de France in the following year. He is an Honorary Member of the Société Centrale des Architectes Français, and of the Architects and Engineers' Society of Vienna; and an Academician of St. Luke at Rome. He has been highly honoured by Harvard University, the oldest and foremost seat of learning in America, which conferred on him the degree of LL.D., the first ever conferred by that University on an artist. Lastly, we have ourselves the honour of claiming Mr. Hunt as one of our Honorary Corresponding Members; and, in anticipation of the more intimate relationship we are now about to assume, it may not be uninteresting to note the views which have been expressed on behalf of both the United States of America and France with reference to Mr. Hunt's acceptance of the honour which we are now permitted to be the medium of conferring on him.

From France the President of the Société Centrale des Architectes Français thus addresses Mr. Hunt:—

Paris, le 8 *avril* 1893.

Mon cher et honoré Confrère,—Le Bureau et le Conseil de la Société centrale des Architectes français m'ont chargé de vous adresser les vives félicitations de notre Société pour l'honneur si justement mérité que vient de vous conférer l'Institut royal des Architectes britanniques, en vous octroyant, cette année, la grande médaille d'or de la Reine d'Angleterre.

C'est, croyez-le bien, une profonde satisfaction pour nous de voir attribuer cette haute et rare distinction à un architecte que beaucoup d'entre nous ont connu, estimé et aimé comme condisciple à l'Ecole des Beaux-Arts à Paris et comme collaborateur d'un de nos maîtres les plus éminents, M. Lefuel.

Nous aimons à penser que c'est un peu l'architecture française qui vient d'être honorée en votre personne en même temps que l'architecture américaine.

En tout cas, c'est de grand cœur que je me fais l'interprète de félicitations, auxquelles je m'associe pleinement, envers un membre correspondant de la Société centrale des Architectes français, envers un artiste à qui son talent et ses mérites ont valu le titre de correspondant de l'Académie des Beaux-Arts.

Veuillez agréer, mon cher et honoré confrère, l'assurance de mes meilleurs sentiments confraternels.

Le Président de la Société centrale des Architectes français, Membre de l'Institut,

H. Daumet.

In reply to an invitation to be present on this occasion, His Excellency the American Ambassador in London has addressed to the Secretary of the Royal Institute the following letter:—

Embassy of the United States, London, the 14*th of June* 1893.

Sir,—Mr. Henry White, Secretary of this Embassy, has acquainted me with the contents of your note to him of the 13th instant, in which, on behalf of the President and Council of the Royal Institute of British Architects, an expression of their desire is made that, as the Ambassador of the United

States, I should be present on the occasion of the presentation of Her Majesty's Gold Medal for Architecture to Mr. Richard M. Hunt, of New York, in recognition of his executed works as an Architect.

Nothing would be more gratifying to me personally—nothing more gratifying to the people of the United States—than my presence as their Representative on an occasion so honorable and of such just distinction to a citizen so eminent in the great profession he has so long adorned.

Of Mr. Hunt's professional skill as an Architect, sustained, as it is, by his personal merits and high character, there is in his own country a consensus of opinion; and to know that his renown has surpassed the limits of his native land, and has met the well-earned applause of the most competent cities of other nations, is a just cause of national pride, which I am sure will be felt when the announcement of the proposed honor to him shall become publicly known in America.

Under instructions of my Government my first duty in Great Britain is the presentation of my credential letter to Her Majesty, and until this shall have been accomplished it would seem proper that I abstain from other acts of an official nature. Therefore, I have asked Mr. Henry White, the Secretary of this Embassy, to be present as a Representative of the Government and People to whom honor is paid when it is bestowed so deservedly upon their distinguished compatriot Mr. Hunt, and I am, Sir, most respectfully, your obedient servant,

T. F. Bayard.

I have referred to these communications because it is pleasant to be thus assured that he whom we delight to honour is held in equally high regard by his confrères alike in the United States and in France. To describe in detail the work of an architect whose practice has been so extensive and so varied entails considerable labour, and it would seem to be superfluous in the present case. Mr. Hunt's principal works, most of which are of classical design, are characterised by both vigour and purity in composition ; and many of them are well known to some here this evening.

I have said enough to demonstrate, were demonstration required, that the recommendation of the name of Mr. Richard Morris Hunt, which we humbly submitted to Her Majesty, is not merely justified by the meritorious works and by the distinguished career of the man, but has been confirmed by the unanimous testimony of those who are best able to judge of his qualifications, both in Europe and in America.

[The President then invested Mr. Hunt with the Royal Medal.]

Mr. Hunt, in presenting to you this Gold Medal, the gift of Her Most Gracious Majesty Queen Victoria, I hand you what is the typical embodiment of the recognition by British architects of your distinguished and honourable career, and of the high architectural merit of your works. The fact that you have travelled some thousands of miles in order that you might personally receive this Medal may be accepted as sufficient evidence of the high estimation in which you rightly regard the honour. It is, indeed, the highest which we are graciously permitted to offer to the most illustrious architects, and we indulge the hope that our American brethren will recognise in this Royal gift, which we are privileged to present to their most eminent representative, the embodiment of the hearty goodwill, the sincere respect, and the ardent admiration with which they are regarded by the architects of the Old World.—J. Macvicar Anderson.

Mr. Richard M. Hunt [*Hon. Corr. M.*].—Mr. President, Fellows and Associates of the Institute, Ladies and Gentlemen, it is needless to say I find myself in a most embarrassing position. Nothing that I can say would adequately represent my feelings of gratification, gratitude, and thankfulness to this Institute. I have been honoured with numerous decorations and honours by different Institutes and Societies, but this gift of Her Majesty the Queen has a peculiar charm about it—it is presented by one's own confrères. I accept it, and I am proud of it, and I am proud of it for my country. I accept it not altogether as a personal distinction or as a personal honour. I accept it for the whole profession of the United States, and it is so considered on the other side. In fact, I have to subdivide this honour with France. The Société Centrale des Architectes Français claims a part of this honour, and rightfully, for to the École des Beaux-Arts and to France I owe everything. In the letter of the Société Centrale allusion is made to my collaboration with my old master, Monsieur Lefuel, and it may be of interest to make a statement here in relation to the works for the connection of the Tuileries to the Louvre. I make this statement because I do not know that any other person may have made it, or ever will, and I happen to know about it. The design of the works for the connection of the Tuileries with the Louvre, commenced by Visconti,

was in the old *Style Empire*, like the Pavillon Marsan on the Rue de Rivoli; and although he was a very learned man and deserved great merit as an architect, yet I think it was a godsend to France and French architects that he was replaced by Lefuel, as that style did not fairly represent the expression of their French architecture; and when Lefuel accepted the position—for he refused it twice—of architect of the works for connecting the Tuileries with the Louvre, he made a condition that he should have a "bureau des études," and that the work should be carried out in the true French style, taking as guide the *petite façade* of the Louvre on the Quai. Now, these great works could not be stopped. There were thousands of men employed, and it was not good policy to stop the works, and everything had to be driven. The *épannelage*—that is to say, the roughly-squared stone—was carried up and carved afterwards. The *épannelage* had been carried up according to the designs of Visconti, but the "bureau des études" was engaged in working out a totally different design. I merely allude to this because there is one fault, I think, and I know Lefuel felt it also, in the Pavillon de la Bibliothèque, opposite the Palais Royal, which was entrusted to my care. The Ionic Order on the second storey is a little slim. We could not get anything more out of it. Let me explain myself. What we wished to have there was the Ionic Order which Philibert Delorme employed at the Tuileries, since destroyed. Unfortunately, the *épannelage* as it existed was insufficient to admit of projecting bands, and Lefuel tried to correct this by proposing to insert marble bands; but that was not allowed him. However, I think perhaps that I may be going too much into detail. I wish to say, Mr. President, that I have been too much favoured as a follower of the profession. It is true I have worked now forty-nine years, but at the same time I have received too many compliments and decorations, and I feel it to be so. I will forgive you, however, Mr. President, for presenting me with this Royal Medal, and there is no honour that I esteem more highly, nor do I think the time could have been better selected than the present, the quadro-centennial year of the discovery of America. It may be of interest to refer to the Exhibition Buildings of the World's Fair, if you would be pleased to hear some account of them, and of the method employed to carry out the work. Generally speaking, other nations have taken time by the forelock. But in America, all the States being independent, there was great rivalry. New York, Washington, and Chicago wanted the Exhibition, and finally it was given to Chicago, but at a time less than two years before that Exhibition was to open; and as it is, as far as covering the ground is concerned, the greatest Exhibition that has ever been, the time was very very short. A question came up before the Committee on Grounds and Buildings whether to appoint one man as the architect of the World's Fair, or to invite limited or free competition, or to appoint different architects for the several buildings. I think, although I happen to be one of those selected, they did very wisely to select their architects. Much time was thereby saved. Months would otherwise have been lost. They had the pluck—that is the only word for it—to select men from different parts of the United States to carry out these buildings; and let me say that this Committee acted in a most liberal spirit. They were always anxious to do everything they could to get up an Exhibition that should be worthy of the United States. And if there is any fault to find with that Exhibition so far as the buildings are concerned, it is with the architects, and not with the Committee. We were a Board of ten architects; five of us so-called "foreign" architects, who were not from the city of Chicago, were entrusted with the buildings on the great Piazza. We were perfectly well aware that, properly speaking, iron construction and glass and tiles were the proper materials to use in such buildings. But had that problem ever been satisfactorily solved? In my opinion, none of the World's Fairs have had the monumental look about them that they should have. Furthermore, we insisted that if the problem could not be satisfactorily solved in the city of Paris, where they had the work right under their hands, and where they had the best artists and artisans in the world—with three times as much time to do it in as we had—and had a twofold experience in such matters, and yet had not been able to solve that problem, would it not be foolish and useless for us, at a distance of a thousand miles apart, and also a thousand miles from our objective, to undertake it. Besides, the Fair grounds which the principal buildings cover are about six hundred acres in extent, and would not there be hundreds of buildings to be lightly constructed? Thus, why should not we take advantage here of the very one thing needed in America, and give a monumental character to the principal buildings? After considerable discussion, therefore, we decided to employ the classic style on the façades around the principal court. Almost perfect freedom was allowed to each architect, the sole restriction being that the main cornice—excluding towers, &c.—should be 60 feet above the terrace level. We took advantage of the situation to introduce, for the first time in our country on a grand scale, the sister arts of sculpture and painting, which, in my opinion, are absolute necessities in monumental architecture. To give you an idea of the Administration Building, it covers about four acres. It is about 280 feet high, and the dome is about 6 feet less in diameter than that of St. Peter's at Rome. On that building alone there are some sixty groups of figures, varying from 20 to 30 feet high. Such an opportunity was just what was needed, and we consider this work as an object-lesson to the United States—to our Government. And here may I—if I can only collect my thoughts and get back to this train of reasoning—introduce just here—in a parenthesis, say—a word or two? You will be surprised to learn that in no country is there such a great amount of money expended yearly in public buildings as in the United States. Yet, there, one man—the Supervising Architect of

the Treasury Department—is called upon to build all the post-offices, custom-houses, and court-houses of the United States, from Maine to California, besides attending to the repairs of all the others. Every Congress appropriates millions for the public buildings, and there were on the books of that architect—a few months ago (we have been trying for several years to break this up)—there were over three hundred buildings on his list! For one public building at Detroit 1,200,000 dollars had been appropriated eleven years previously, and the works had progressed as far as the foundations! On other buildings they had not even sharpened their pencils or given the matter a second thought. Now, to return to Chicago. I would like to say that of all the forlorn places, when we as a body visited the site, I think Jackson Park was the most forlorn. A good portion of the southern part—I should say one-third of it—was under water, and the general laying-out of the grounds, and the introduction of a new and beautiful feature into international exhibitions—that of water intercommunication—are really due to the genius of Frederick Law Olmstead and Harry Codman. On these waters the boats glide about, all being worked with electric batteries. Now, the earth that these buildings were put upon, or supposed to be built upon, had to be dug out of these canals, and it was hard to make into terraces. I do not know, Mr. President, that there is anything further that I can say, except that I have to thank you most sincerely, not only for myself but for my profession—for the profession at large in the United States—for the honour conferred upon me this evening. I shall try to hold myself and do all that I can to prove myself worthy of the honour conferred.

THE PRESIDENT.—You have already learnt from the charming letter which I have read from Mr. Bayard, the Ambassador of the United States, the reason why he thought it his duty not to attend here this evening; and from that letter you have also learnt that we are favoured with the presence of a representative of the United States, Mr. Henry White. I have asked him to be kind enough to say a few words in regard to Mr. Hunt's acceptance of this medal.

MR. HENRY WHITE (Secretary to the United States Embassy).—Mr. President, Ladies and Gentlemen, I should have thought it superfluous, after the letter which has been read from my chief, to have trespassed even for one moment upon your valuable time; but as the President was kind enough to ask me when I came this evening to say a few words, I felt I could not refrain from expressing the very great gratification and high appreciation which not only we of the Embassy, but I am sure almost every one in the United States, cannot fail to feel at the great honour done by Her Majesty the Queen, upon the recommendation of this Institute, to our distinguished countryman, Mr. Hunt. It would be superfluous, and indeed presumptuous, I think, for me, who have no technical knowledge of the subject, to attempt to refer to Mr. Hunt's valuable services to architecture in our country; but I can only say that his name is associated in the mind of every American with all that is most progressive and beautiful in the architecture of our country. Of that I have not the slightest doubt, and I am quite sure that if a vote were taken throughout the United States as to the person most worthy in the country to receive the honour which has been conferred upon him this evening, there would be a most enormous majority in his favour. I am afraid for that reason, on behalf of those supposed voters, I ought to protest against the subtle, but I fear not the less determined, attempt of the President to appropriate Mr. Hunt as a British subject. Indeed, there is one side of this question which appeals perhaps more to me as a diplomatist than to most of the people here present, and that is the feeling evoked on every occasion such as this, when an honour is rendered by an Institution so admirable as this to a distinguished citizen of the United States; an attempt to strengthen still further that already powerful chain of interest and sympathy which unites the two countries together—the constantly increasing strength of which it has been my great pleasure to witness during now more than nine years I have been in England, and towards the strengthening of which it has always been my greatest pleasure to contribute.

BARON H. VON GEYMÜLLER [*Hon. Corr. M.*].—Mr. President and Gentlemen, may I be permitted, as a *Correspondant* of the Institut de France and a confrère of Mr. Hunt, come over from Paris for the present solemnity, to say a few words to reflect the feelings of the Academy of Fine Arts on this occasion? Though I have received no mission from that Academy to represent the Institut de France here, I feel that there can be nothing unconstitutional whatever in my simply expressing, like a faithful document, what I know to be the absolute truth, namely, the great sympathy of all the members of the Academy of Fine Arts, who for many years have known Mr. Hunt personally, and the great satisfaction they feel at the high distinction conferred on him to-night. The day before yesterday, at the regular meeting of the Academy, having asked M. Charles Garnier, also a Royal Medallist, and Vice-President Daumet if they were coming over to the present solemnity, I understood, from the way in which they expressed their regret at being prevented from doing so, how warm an interest they took in the great distinction conferred on Mr. Hunt by his English confrères in the name of Her Majesty the Queen. Personally, not only as a foreign confrère frequently residing in Paris, but still more as nephew of Count Delaborde, the Permanent Secretary of the Academy of Fine Arts, I was often able to be a witness of the great sympathy of the Academy for their American confrère. By a singular coincidence, which I may be permitted to qualify as fortunate for me, the very first time I assisted as *Correspondant* at a meeting of the Academy one of the first persons to whom I was introduced by the Permanent Secretary was Mr. Hunt, then in Paris, as to one of the most sympathetic and interesting foreign correspondents, and one of our

most distinguished confrères. Fully aware of this sympathy, and having some time ago to write to Mr. Hunt on some personal matter, I asked Count Delaborde if I might send his compliments to Mr. Hunt. He warmly answered very much as follows :—"Je le crois bien, non seulement les miens, " mais ceux de tous les Membres de l'Académie, " car tout le monde l'aime beaucoup." It is my personal impression that Mr. Hunt enjoys at the Academy of Fine Arts great popularity, if it be permitted to apply that word to the feelings of an assembly considered to be composed of Immortals. I feel particularly happy to have been able to inform Mr. Hunt and all our distinguished English brother architects of these feelings. And here ends the expression of those facts for which I can take the entire responsibility. May I nevertheless be permitted to add a few words more? I believe the choice of our English confrères to have been particularly happy, since their distinction falls on an artist of whom old Vasari would no doubt have written :—" Fu il primo che " introdusse in America il buon disegno." By doing this Mr. Hunt has become the Brunellesco of the United States. The fact that this distinction falls in the very year when the Old World and the New commemorate the fourth centenary of the discovery of America is particularly fortunate. Does this fact not proclaim that the highest conception of Art, of which the Academy of Fine Arts in France strives to hold up faithfully the immortal principles, is spreading over the whole world, and that those principles from which perfection is alone derived are equally as well honoured on the banks of the Thames and beyond the wide Atlantic as on those of the Seine?

Mr. PAUL SÉDILLE [*Hon. Corr. M.*].—Messieurs et chers Confrères, excusez-moi tout d'abord de prendre ici la parole en français. C'est dans la langue qui vous est propre que je voudrais pouvoir m'adresser à vous pour exprimer aux Membres de l'Institut Royal des Architectes Britanniques, et à mon honoré confrère, M. Richard Hunt, en particulier, les sentiments de bien réelle confraternité qui m'animent. Heureusement que la plupart d'entre vous, Messieurs, sont plus savants que moi et que la langue française ne leur est pas étrangère. M. Hunt a passé d'ailleurs de longues années en France; je me plais à le rappeler en cette circonstance solennelle de sa carrière d'artiste. Il a conservé de son séjour parmi nous non seulement sa connaissance approfondie de notre langue, mais surtout de bons souvenirs qu'il ne manque jamais de rappeler avec une cordialité dont nous lui sommes profondément reconnaissants. Aussi, nous autres français, pouvons-nous être fiers de venir applaudir à Londres au grand honneur qui est fait à notre éminent confrère américain par les architectes anglais, en lui attribuant cette Médaille d'Or que notre vénérable M. César Daly recevait l'année dernière de vos mains, que, sans remonter plus haut, vous décerniez, il y a quelques années, à notre illustre maître et ami, M. Charles Garnier. Monsieur Hunt nous permettra de prendre grande part à son succès, car nous n'oublions pas, comme il le répète avec complaisance lui-même, que c'est à l'Ecole Nationale des Beaux-Arts de Paris, que c'est sous la direction de nos maîtres les plus reconnus, qu'il est venu se pénétrer des grands principes de son art. M. Hunt a gardé de ces études fondamentales une élévation de style, une distinction dans les formes qui ennoblissent tous les édifices, tous les monuments qu'il a élevés. Très sensible aux élégances de la Renaissance française, il a transporté au-delà de l'Atlantique les délicatesses de cet art charmant, tout en l'appropriant à des besoins modernes et à un milieu nouveau. L'hommage rendu en ce jour à un confrère américain réputé touche donc intimement notre cœur de Français, car nous pouvons considérer M. Hunt comme beaucoup le nôtre et je suis certain qu'il ne me démentira pas. Mais si nous sommes heureux de voir beaucoup de jeunes artistes américains suivre l'exemple dès longtemps donné par M. Hunt et venir chercher en France des leçons et des modèles, nous ne nous flattons pas que là seulement ils puissent trouver les enseignements nécessaires. L'art n'a pas une patrie restreinte, il est de tous les temps, de tous les pays, ses manifestations ne sont que différentes. Car des principes immuables gouvernent ces manifestations différentes, et si les formes apparaissent dissemblables, elles sont toujours dans leur diversité, la consécration des principes de logique et de vérité qui sont la gloire de l'Architecture. La France ne saurait donc être que dépositaire d'une parcelle de cette vérité qu'elle a fait briller dans ses œuvres anciennes ou modernes suivant le propre de son génie. Cette vérité, nous devons la rechercher dans l'étude des monuments de tous les pays. Personnellement, je me suis fait un plaisir et un devoir de signaler les remarquables travaux exécutés en Angleterre depuis un certain nombre d'années, travaux qui témoignent chez vous, Messieurs, de cet ardent amour de logique et de sincérité qui doivent être, je le répète, la source la plus féconde de nos inspirations. J'ai admiré vos beaux travaux si expressifs des besoins matériels comme de l'idéal qui vous sont particuliers. Je suis heureux de pouvoir dire que maintenant mon admiration est partagée par grand nombre de mes compatriotes et que, spécialement, nous venons emprunter à l'Angleterre beaucoup de ce qui fait le charme de vos habitations à la fois si comfortables et si pittoresques. Mais dans cet échange artistique d'idées, il ne faut pas oublier que ce qui convient ici ne convient pas là. A des besoins différents, il faut des formes différentes. Les principes seuls sont communs aux manifestations diverses de notre art. Il faut que nous restions Français comme vous restez Anglais, et il faut que les architectes américains deviennent réellement Américains. Dans notre vieille Europe, nous disons souvent en parlant de l'Amérique : " La "jeune Amérique !" Je pense que mon confrère M. Hunt ne m'en voudra pas de cette appellation. C'est si beau la jeunesse ! Et M. Hunt doit être fier de la représenter si vaillamment ! Or, en fait d'art, l'Amérique est encore, je crois, dans

une période de tâtonnements, cherchant sa voie. Comme l'abeille, elle butine un peu partout, dans tous les pays du monde, pour faire plus tard son miel. Ce miel sera assurément exquis; de plus heureux que nous pourrons y goûter dans l'avenir. On ira alors aux Etats-Unis étudier les merveilles d'un art jeune et nouveau, comme on vient en Europe s'inspirer des arts du passé. Ce n'est peut-être pas un rêve que je fais là, Messieurs. Hélas! tout change, rien ne dure! Je ne dirai pas tout meurt, car l'Art et le Beau sont immortels! Je termine, Messieurs, en vous disant combien je suis heureux d'avoir pu en ce jour me faire l'interprète de la Société Centrale des Architectes Français, en saluant dans mon éminent confrère, M. Richard Hunt, un des plus illustres représentants de l'Art aux Etats-Unis d'Amérique.

THE PRESIDENT.—Members of the Institute, before parting I wish to congratulate you, as I do myself, on having concluded the Session so auspiciously by conferring honour on one so thoroughly deserving of it. I wish you all a pleasant and enjoyable holiday, and trust you will return to these rooms so vigorous as to exhibit the result of the benefit of your holidays by your regular and constant attendance at our Meetings. Ladies and Gentlemen, I beg to thank you for your kindness in having come here this evening to do honour to Mr. Hunt and ourselves, and I propose now, with your permission, to adjourn to the galleries downstairs, where music and refreshments are provided, which I hope, on such a warm evening as this, you will find acceptable.

MINUTES. XVI.

At the Sixteenth General Meeting (Ordinary) of the Session, held on Monday the 19th inst., at 8.30* p.m., Mr. J. Macvicar Anderson, *President*, in the Chair, with 61 Fellows (including 19 members of the Council), 55 Associates (including 2 members of the Council), 3 Hon. Associates, 1 Hon. Fellow, 3 Hon. Corr. Members, and many visitors, the Minutes of the two General Meetings (Special and Business) held on the 5th inst. [see pp. 413-16 *ante*], were signed as correct.

The following members, attending for the first time since their election, were formally admitted and signed the respective Registers, namely:—Arthur Crow, W. Arthur Heazell (Nottingham), T. E. Lidiard James, A. H. Paget (Leicester), Sydney Stent (Kimberley, S. Africa), R. Frank Vallance (Nottingham), and Robert Walker (Windermere), *Fellows*; and Robert Clamp (Woking), J. E. Evans (Reading), and J. C. Nicol (Birmingham), *Associates*.

The Hon. Secretary read a letter† from M. Eugène Müntz [*Hon. Corr. M.*], elected at the last meeting, as follows:—

Paris, 15 juin 1893.

MONSIEUR LE PRÉSIDENT,—En vous accusant réception du diplôme qui me confère le titre de membre honoraire correspondant de l'Institut Royal des Architectes Britanniques, je viens en même temps vous prier d'accepter pour vous-même et de transmettre à vos collègues l'expression de ma plus vive gratitude.

La distinction si rare et si enviée que l'Institut Royal m'a accordée est faite pour m'honorer au plus haut point: j'en suis d'autant plus touché et plus fier que cette marque de sympathie est donnée à celui qui ne peut revendiquer que le titre d'archéologue par des artistes éminents, par des créateurs, qui affirment ainsi la solidarité entre l'art et la science.

Je n'oublierai pas, d'un autre côté, qu'en m'agrégeant à une société si justement célèbre vous m'avez imposé des obligations: je m'estimerai très heureux de pouvoir prendre part aux travaux de l'Institut Royal et de justifier par mes efforts la confiance que vous m'avez fait l'honneur de me témoigner.

Veuillez agréer, monsieur le Président, l'hommage de mes sentiments de haute considération.

EUGÈNE MÜNTZ.

Monsieur le Président de l'Institut Royal des Architectes Britanniques.

THE ROYAL GOLD MEDAL 1893.

The Hon. Secretary read a letter* from M. H. Daumet [*Hon. Corr. M.*], Member of the Institut de France, as follows:—

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* Preceded, at 8 p.m., by a Presidential Reception of members and visitors held in the Conduit Street Galleries.

† The following is a literal translation:—

Paris, 15*th June* 1893.

MR. PRESIDENT,—In acknowledging the receipt of the diploma which confers on me the title of Hon. Corresponding Member of the Royal Institute of British Architects, I beg you at the same time to accept for yourself and transmit to your colleagues the expression of my liveliest gratitude.

The distinction, so rare and so envied, accorded to me by the Royal Institute, happens to honour me in the highest degree. I am so much the more touched and more proud that this mark of sympathy to one who can only claim the title of archæologist is given by eminent artists, by creators, who thereby affirm the solidarity between Art and Science.

On the other hand, I shall not forget that in admitting me into a Society so justly celebrated, you have imposed upon me obligations: I shall consider myself very happy to be able to take part in the work of the Royal Institute, and to justify by my efforts the confidence you have done me the honour to show.

Be willing to receive favourably, Mr. President, the homage of my sentiments of high consideration.—(Signed) EUGÈNE MÜNTZ.

* The following is a translation:—

Paris, 16*th June* 1893.

MR. PRESIDENT AND VERY HONOURED CONFRÈRE,—I am very conscious of the honour which the members of the Royal Institute of British Architects do me in inviting me to assist at the presentation, to my eminent confrère and friend Mr. Hunt, of the Gold Medal of Her Majesty the Queen of England, Empress of India. This supreme reward comes to crown the laborious life of the artist, and I should have been happy to join my English confrères in that solemnity to do honour to Her Majesty and to Mr. Hunt.

By a coincidence which I regret, on Monday 19th instant the opening of the Annual Congress of French Architects takes place, and it is my duty to preside at

Paris, le 16 juin 1893.

Monsieur le Président et très honoré Confrère, —Je suis très reconnaissant de l'honneur que me font les membres de l'Institut Royal des Architectes Britanniques en m'invitant à assister à la remise à mon éminent confrère et ami, M. Hunt, de la médaille d'or de S.M. la Reine d'Angleterre, Impératrice des Indes. Cette suprême récompense vient couronner la vie laborieuse de l'artiste, et j'aurais été heureux de me joindre à mes confrères anglais en cette solennité pour porter la santé de Sa Majesté et de M. Hunt.

Par une coïncidence que je regrette, le lundi 19 a lieu l'ouverture du Congrès annuel des Architectes français, et j'ai pour devoir de présider cette première séance, ce qui me prive du plaisir d'être à la réunion de "Limmer's Hôtel."

J'ai donné connaissance aujourd'hui à une assemblée générale des membres de notre Société centrale de la gracieuse invitation qui m'était faite, et mes confrères ont voté à l'unanimité des félicitations pour notre sociétaire M. Hunt, de vives acclamations en l'honneur de nos confrères de l'Institut Royal.

Veuillez, monsieur le Président et très honoré confrère, agréer l'expression de mes meilleurs sentiments confraternels.

Le Président de la Société Centrale des Architectes Français, Membre de l'Institut,
H. Daumet.

Monsieur John Macvicar Anderson,
Président de l'Institut Royal des Architectes Britanniques.

The Hon. Secretary further read extracts from letters received from M. Charles Garnier [*Hon. Corr. M.* and *Royal Gold Medallist*], and M. César Daly [*Hon. Corr. M.* and *Royal Gold Medallist*], expressing regrets at their inability to attend the Meeting, and conveying their friendly sentiments to the members of the Institute.

The President having delivered his Address on the presentation of the Royal Gold Medal, the gift of Her Majesty the Queen, handed the same to Mr. Richard M. Hunt [*Hon. Corr. M.*], who replied in acknowledgment of the honour.

Mr. Henry White (Secretary to the United States Embassy), having spoken on behalf of the Embassy, the Baron H. von Geymüller [*Hon. Corr. M.*], on behalf of the Institut de France, and M. Paul Sédille, on behalf of the Société Centrale des Architectes Français, the President congratulated the Institute on concluding so auspiciously the sixteenth and final General Meeting of the Session.

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the first meeting, which deprives me of the pleasure of being at the assembly in London.

I have to-day informed a General Meeting of the Members of the Central Society of the gracious invitation made to me, and my brethren have unanimously voted their congratulations to Mr. Hunt, with lively acclamations in honour of our brethren of the Royal Institute.

Be willing, Mr. President and very honoured Confrère, to receive favourably the expression of my best confraternal sentiments.

The President of the Central Society of French Architects, Member of the Institut de France.
H. Daumet.

The proceedings having thus been brought to a close, the Meeting adjourned at 9.45 p.m. to an entertainment given by the President in the Conduit-Street Galleries, which terminated at about 11 p.m.

LEGAL & PARLIAMENTARY NOTES.

Exemption of Buildings under the Metropolitan Building Act, 1855.

Frederick Coole *v.* Henry Lovegrove.

The following report of this case, which came before the Queen's Bench Division on the 8th ult., has been furnished by Mr. Lovegrove, and will be read with interest alike by district surveyors and by builders:—

This was an appeal by way of special case from a decision of Mr. Horace Smith, stipendiary magistrate, the short question being whether a building erected on a wharf of the Regent's Canal Company, and let to a philanthropic company for wood-cutting, came within the exemption of buildings not necessary to be erected under the supervision of the district surveyor under the Metropolitan Building Act 1855.

Mr. Charles Matthews appeared for the appellant; Mr. R. Glen for the respondent.

It appeared from the special case that the appellant, the secretary of the Regent's Canal City and Docks Railway Company, was summoned on 22nd November 1892 for erecting a building and neglecting to give notice to the respondent, who is the district surveyor of South Islington, Shoreditch, &c., of the particulars as provided by the Metropolitan Act 1855. The building in question was erected on a wharf at 38, Graham Street, Islington, the wharf belonging to the company and used by them for the purposes of their business under certain Acts of Parliament. The building, when erected, was let to the Philanthropic Firewood Institution, and held by them for chopping firewood in. The blocks of wood of which the firewood is made are conveyed over the company's canal in barges in the ordinary way of their business, an arrangement being made with the institution that the canal only should be used for the conveyance of the wood to the institution. The company receive tolls for the passage of the barges, but it is not a carrying company. The appellant contended that the building in question was not within the provisions of the Metropolitan Building Act 1855, but was exempt therefrom by section 6 as being a building belonging to a canal company and used for the purposes of such canal under an Act of Parliament. The respondent contended that the building was not within the exemption contained in section 6, because it was not in the actual occupation of the said company, nor was it used for the purposes of the canal company. The learned magistrate convicted the appellant and fined him 20*s.* and 23*s.* costs, but stated this case for the opinion of the Court.

Mr. Matthews submitted the building was let in order that the company might get tolls for the wood being carried, and the use of the wharf in such a way was for the purposes of the canal company. The case of the "North Kent Railway Company *v.* Badger" (27 *L. J.*, M.C. 106) was cited.

The Court, without calling on counsel for the respondent, dismissed the appeal with costs.

Mr. Baron Pollock said he had no doubt the magistrate was right. By the Regent's Canal Act the

company were allowed to build sheds and buildings and other conveniences for their business. The intention of that Act was to make a water or highway with quays, wharves, &c., without which the waterway would be comparatively useless. A wharf or building might, of course, bring a profit to the company; but it did not follow that every building which brought a profit was used for the purposes of the canal company.

Mr. Justice Kennedy said he was of the same opinion, and he decided the case on the short point that a building for purposes of manufacture did not seem to be used for purposes of the company merely because the company might possibly or probably gain something by its erection.

THE ARCHITECTS' BENEVOLENT SOCIETY.

The Treasurer of the Architects' Benevolent Society, having issued an Appeal to Architects and Surveyors, for subscriptions or donations in support of that Society, has received a certain number of contributions and promises of others, particulars of which (with the terms of the appeal) are given below:—

Dear Sir,—Permit me to invite your attention to the only Society which exists in the United Kingdom exclusively for affording assistance to those in necessitous circumstances who have been engaged as Architects or Architects' assistants, and to their widows and children; and to solicit your generous support by donation or annual subscription, or both.

The restrictions imposed by other benevolent institutions for the relief of artists deprive the greater number of Architects who may require it from obtaining assistance therefrom. The only restrictions in this Society are that the applicant shall be of good moral character, be known to have been honourable in his practice, and to have been duly educated in an Architect or Surveyor's office, and—most important of all—*that the Council of the Society shall have at their disposal sufficient funds to meet the necessities of the case.*

The entire income available from annual subscriptions and investments is under £600, which is quite inadequate to sufficiently meet the demands for that assistance to Architects in necessitous circumstances, and to their widows and orphans, which the Council should be able to afford, and they hope that by this appeal to the profession at large they may receive such liberal contributions, in both donations and annual subscriptions, as will, in the one case, by the increase of its invested capital, add to the permanent income which may be devoted to pensions, and, in the other, place at their disposal a larger amount available for the relief of special and urgent cases.

The sad experience of urgent cases in which the Council have been able to grant relief (often with the happiest results) has shown conclusively that the Society has undertaken no superfluous task; it supplies much-needed help to those who, by illness or misfortune, have fallen into necessitous circumstances, and merits the generous support of those successful members of the profession, who, in the days of their prosperity, should according to their means contribute towards the aid of their less fortunate brethren who, through affliction or distress, are worthy applicants for relief.

I shall have much pleasure in receiving your contribution, which will be duly acknowledged to you, and recorded in the Red Book of the Society—a new edition of which will be issued to all contributors immediately the result of this appeal is ascertained.—I am, yours faithfully,

Arthur Cates, *Hon. Treasurer.*

List of Recent Contributions.

	Donations £	s.	d.	Subscriptions £	s.	d.
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*Hardcastle: F. H. A.		—		1	1	0
Harris: Thomas	†5	5	0	1	1	0
Hill: Samuel	†2	2	0	2	2	0
Hine: T. C.		—		†2	2	0
*Homan & Rodgers: Messrs.	21	0	0	5	5	0
*Hooper: T. Rowland	1	1	0		—	
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RECENT CONTRIBUTIONS—*continued.*

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*Smirke: Sydney	5	5	0	2	2	0
Smith: Albert E.		—		1	1	0
*Stenning: A. R.	5	5	0	2	2	0
Stevenson: John J.	†1	1	0	1	1	0
*Tait: C. J.	1	1	0		—	
*Treadwell & Martin: Messrs.	5	5	0		—	
*Tucker: E. P.		—		1	1	0
Webb: Aston	†10	10	0	†2	2	0
Wimperis: J. T.	†21	0	0	1	1	0
*Woodward: Wm.		—		†2	2	0
*Young: William	5	5	0		—	
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BOOKS RECEIVED.

ALLEN & Co. LD. Mahâbodhi; or, The Great Buddhist Temple under the Bodhi Tree at Buddha-Gaya. By Major-General Sir A. Cunningham, R.E., K.C.I.E., C.S.I. la. 4o. Lond. 1892. From the Secretary of State in Council of India.

BATSFORD. The Plumber and Sanitary Houses: a practical treatise on the Principles of Internal Plumbing Work, or the best means for effectually excluding noxious gases from our Houses. By S. Stevens Hellyer. Fifth edition. 8o. Lond. 1893. From the publisher.

A Treatise on Shoring and Underpinning, and generally dealing with ruinous and dangerous structures. With numerous illustrations on ten lithographic plates. By Cecil Haden Stock. Second edition. 8o. Lond. 1893. From the publisher.

Photographs of a few Chimney Pieces, Overmantels, Doorways, Panelling, &c. By F. A. Fawkes. fo. Lond. From the publisher.

BUMPUS. Furniture and Decoration in England during the eighteenth century. Two vols. By John Aldam Heaton. fo. Lond. 1889–92. From the publisher.

CLARENDON PRESS. Wadham College, Oxford: its foundation, architecture, and history, with an account of the family of Wadham and their Seats in Somerset and Devon. By T. G. Jackson, A.R.A., Architect. 4o. Oxford 1893.

New English Dictionary on historical Principles. Vol. iii., part 1, and part 7. Edited by Dr. J. A. H. Murray. sq. fo. Oxford 1891 and 1893. From Mr. B. Ingelow.

COMMIN (Exeter). The Old Stone Crosses of the Dartmoor Borders; with notices of the scenery and traditions of the District. By William Crossing. 8o. Exeter & Lond. 1892.

DUMOULIN & Co. (Paris). La Bibliothèque Lesoufaché à l'Ecole des Beaux-Arts. By Eugène Müntz. pam. 8o. Paris 1892. From the author.

GARNIER FRÈRES (Paris). Vignole: Traité élémentaire pratique d'Architecture, ou étude de cinq ordres d'après Jacques Barozzio da Vignola. By J. A. Leveil, Architecte, Ancien Pensionnaire du Roi à Rome. New edition. 4o. Paris.

IMPRIMERIE NATIONALE (Paris). Rapport adressé à Monsieur le Ministre de l'Instruction Publique au nom de la Commission de la Manufacture des Gobelins. By Eugène Müntz. pam. 8o. Paris 1890. From the author.

KELLY & Co. LD. Laxton's Builders' Price Book for 1893, containing above 72,000 prices, originally compiled by William Laxton. Seventy-sixth Edition. 8o. Lond. 1893. From the publishers.

LONGMANS, GREEN, & Co. Sefton: a descriptive and historical account, comprising the collected notes and researches of the late Rev. Engelbert Horley, M.A., late Member Historic Society of Lancashire and Cheshire, Rector 1871–1883. Together with the records of the Mock Corporation. By W. D. Caröe, M.A. Cantab., Fellow of the Royal Institute of British Architects, Member Historic Society of Lancashire and Cheshire, and E. J. A. Gordon. 8o. Lond. 1893. From the publishers.

Games, Ancient and Oriental, and How to play them. Being the games of the ancient Egyptians, the Hiera Gramme of the Greeks, the Ludus Latrunculorum of the Romans, and the Oriental games of Chess, Draughts, Backgammon, and Magic Squares. By Edward Falkener. 8o. Lond. 1892. From the author.

OGILVIE (New York). Palliser's Common Sense School Architecture. Illustrating the practical and economical Warming and Ventilation, and the correct planning, arrangement, and sanitary construction of school buildings for American cities, towns, and villages. By Palliser, Palliser & Co., Architects. fo. New York 1889. From the publisher, per B. T. Batsford.

PERCIVAL & Co. The Evolution of Decorative Art. An Essay upon its origin and development, as illustrated by the art of modern races of mankind. By Henry Balfour, M.A., F.Z.S. 8o. Lond. 1893. From the publishers.

PLON, NOURRIT, & Co. (Paris). La Renaissance Française. By Eugène Müntz. pam. 8o. Paris 1890. From the author.

REBESCHINI & Co. (Milan). Sul restauro al Rivestimento Marmoreo dei Piloni nel Duomo di Milano. By Luca Beltrami. fo. Milano 1893. From the author.

RECORD AND GUIDE PRESS (New York). Modern Office Buildings; practical limiting conditions in their design. By George Hill, C.E. pam. 8o. New York 1893. From the author.

Société Nationale des Antiquaires de France. La Mosaïque Chrétienne pendant les premiers siècles. By Eugène Müntz. pam. 8o. Paris 1893. From the author.

Spon. Twenty years' practical experience of Natural Asphalt and Mineral Bitumen. By W. H. Delano, Assoc.Inst.C.E. 8o. Lond. 1893. From the author.

Swan Sonnenschein & Co. The Birth and Development of Ornament. By F. Edward Hulme, F.L.S., F.S.A. 8o. Lond. & New York. 1893. From the publishers.

THE ANCIENT SARCOPHAGUS

In the Imperial Museum, Constantinople.

The following extracts from a lecture delivered in Constantinople at the close of last year by Canon Curtis, on "The So-called Sarcophagus of "Alexander the Great," may prove interesting to antiquarian students. The whole lecture, which will be found in the English portion of *The Levant Herald* of the 30th November 1892, is particularly interesting, and want of space alone necessitates its mutilation as follows:—

No one has yet proved that the sarcophagus discovered at Sidon and now on view in the Stamboul Museum was Alexander's; on the contrary, writers, both Greek and Roman, are at one in attesting that his remains were taken to Egypt. Diodorus Siculus, Strabo, Suetonius, Pausanias have written to this effect. According to Pausanias, Alexander was buried at Memphis; his coffin was removed thence to Alexandria, for it was in that city that the remains of the hero were visited by Cæsars; at Alexandria, Augustus, whose visit Suetonius relates, gazed on the body and laid on it reverently a chaplet, and showered flowers over it. Vain Caligula ordered Alexander's breastplate to be taken out of the coffin there and sent to him that he might deck himself with it for the Circensian games at Rome. . . .

Now, although proof is altogether wanting to identify the sarcophagus in question with that of Alexander the Great, we can hardly doubt that its history had some relation to its *supposed* occupant. Let us examine two pieces of sculpture in high relief on the sarcophagus—those on its two parallel sides. You may remark, on the *left* hand edge of the carved slab that confronts you as you pass up the room, the head of a Greek horseman wearing a cap of lion's skin—the skin of a lion's head. As Alexander the Great is so represented on his coins, this has been recognised as his portrait. But it must be observed that the position of this cavalier is *secondary*, whereas another, also a Greek, is represented in the centre of the group, raising his sword as if ready to cut off the uplifted arm of a Persian who has dropped his weapon and is asking "quarter."

Who is this Greek? May it not be *Clitus*, who saved Alexander's life at the battle of Granicus? And who is that disarmed Persian? We may suppose him to be that Spithridates who had assaulted Alexander. The sculptor, we may remark, only *suggests* the infliction of the wound, without representing the mutilation of the limb or the blood gushing out of the wound. This treatment is in accordance with the rule of Greek art to keep out of sight all that is repulsive; that appeal to the imagination is more impressive which is addressed by the artist through suggestion, rather than by *direct* expression. . . . . .

It is not known either when or by whom the sarcophagus, called Alexander's, was prepared. After the death of their Chief the disputes among his surviving Generals delayed the *official* funeral for two years, and it is not probable that any one during that period of confusion took thought for the monument.

The sarcophagus was, as I am inclined to think, made ready during the lifetime of Alexander—not long before his death—and as he permitted no one but Lysippus to execute his likeness in sculpture, and only Apelles to paint it, then, if it can be proved that Alexander's portrait is upon it, none other than Lysippus was the artist who designed it. Some inequality, however, has been remarked in the execution of the design, as if some part of the work had been entrusted to an apprentice. This wonderful masterpiece is, to a certain degree, imperfect; the requisite harmony of the whole composition is somewhat wanting. We see before us, as we may suppose, the production either of Lysippus or of a pupil or pupils of his school; or it may be a copy in marble of a work of the Master in bronze. But, whoever executed or designed the battle-scene, these characteristics of the art of Lysippus are to be noticed, such as Pliny describes: elegance, precision in details and portraiture, as well as energy of action and that somewhat dramatic movement which Propertius attributes to Lysippus when he admires his "*animosa signa*," "figures full of life." Lysippus rather neglected the ideal, and preferred to copy nature; most of his works are in bronze—chiefly statues—rarely groups. But of his groups we seem to have examples here, and these two specimens appear to be like the two famous groups which Pliny describes as works of Lysippus.

According to that writer, Lysippus executed one group of twenty-five horsemen, comrades of Alexander, who fell at the battle of Granicus, and gave their likenesses in it; and another group, representing a lion hunt, in which work Leochares was associated with him. One may well ask, as to the representation on the other side of the sarcophagus, what relation it has with Clitus.

. . . . . .

A French traveller describes a tribe settled in the regions of Persia, who boast of their descent from the Hellenes (Yunani) that were left there by Alexander the Great (Iskander Roumi), and he quotes Marco Polo's account of such a people, remnants of the Macedonians, as dwelling on the borders of Chinese Tartary; and English travellers, on reaching Kafiristan (so called by their neighbours, who are fanatical Afghans), have been surprised to find there a nation of "nearly a million of warriors, descendants of "Greek colonists left by Alexander the Great at Can-"dahar (Iskenderhar) and at Cabul." "These people "have a bias towards Europeans," wrote Major Gordon in a letter to the *Times* of 5th February 1880, "and call for their help against Afghan ene-"mies who surround them and harass them." They call themselves Kami. Even the name of their city, Cabul or Kabul, shows their Greek origin, for it was formerly Κάμαν πόλις—Camboul, city of the Cami. Remains of Greek art and workmanship are found among them, and even to this day "they hold on to "an ancient Greek Pagan Religion," and worship Baggheush (Bacchus). . . .

London: Printed by Spottiswoode & Co., New-street Square; and published by The Royal Institute of British Architects, at No. 9, Conduit Street, in the Parish of St. George, Hanover Square, both in the County of Middlesex, 22 June 1893.

THE JOURNAL OF PROCEEDINGS OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

VOL. IX. NEW SERIES | No. 18 | 20 JULY 1893

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SESSIONAL NOTES.

A Judge's Story.

The present Lord Chief Justice of England, in a letter to the President of the Institute, which was published in *The R.I.B.A. Journal* [pages 279–80 *ante*], told a story to the effect that many years ago a great nobleman employed an eminent architect to make designs and give estimates for a great work of rebuilding, and that he purchased the drawings; that ten years afterwards the great nobleman "had recourse to another architect, and executed under his control an "entirely different building for less than half the money estimated by the first archi-"tect;" and that the last-named, who made the first designs, actually demanded 2½ per cent. upon the outlay for the second architect's "entirely different building." Now, if an "expert" witness were to tell a similar story in a case argued before the Lord Chief Justice, it is highly probable that his lordship would ask for details, perhaps for names, at least for justificatory evidence. But a story from the Bench may not be questioned; it is usually received with laughter, in which the Judge sometimes joins. Would, however, Lord Coleridge be surprised to learn that a story, much like his, though with an important *addendum*, was current many years ago? An eminent architect was the very intimate adviser of a great nobleman, who, although owner of a vast estate, was not a liberal man. The eminent architect made designs, or "plans" as the expression goes, for the great nobleman's castle, and then the two quarrelled and the contemplated work was abandoned; the eminent architect's designs, which were considered too costly, having been paid for at a low rate of commission. Some years afterwards less expensive "plans" were prepared by an official (who might have been an architect, or a master-mason, or even a simple mason) on the said great nobleman's estate, and the work was executed. Thereupon the eminent architect aforesaid, *having detected in the executed building a resemblance to the designs he had originally prepared*, for which he had been inadequately paid, claimed an extra commission, on the plea that they had been used, or partly used, in the execution of the finished work. Such was the story; and even if the eminent architect did not get his claim recognised—even if Lord Coleridge, who then wore a stuff gown, was a junior engaged in the case—the alleged attempt at extortion would appear to have had a solid basis of right on which to rely; and it might look, except to a judge or an advocate, very like an unsuccessful effort to obtain justice. This, though, is surmise, and the subject is hardly worth pursuing. Lord Coleridge, coming as he does of a poetic stock, inherits a romantic mind; and a good story, like good port, generally improves with age. Thackeray, who disliked George the Fourth as heartily as the

present Lord Chief Justice of England misunderstands building matters, said the King had heard the story of Waterloo so often that he came at last to believe he had led a charge in that battle. Perhaps, from a like cause, Lord Coleridge's professional anecdote has become similarly a little mixed.

The American Institute. The Annual Convention of the American Institute of Architects is to be held at Chicago during the week commencing the 31st inst. All who wish to attend are requested to inform the Secretary of the American Institute, —Mr. Alfred Stone, 65, Westminster Street, Providence, R.I.,—in order that additional arrangements may be made, if necessary, for their accommodation. Six Papers on the Columbian Exposition are promised. Others, on subjects of general architectural interest, are :—(1) A Review of Chicago's Architecture, by Frederick Baumann ; (2) Engineering in Architecture, by L. de C. Berg ; (3) The Influence of Building Laws upon Architectural Development, by C. H. Blackall ; (4) Ethics in Architecture, by A. J. Bloor ; (5) A Review of recent Plumbing Practice, by Glenn Brown ; (6) Association for Mutual Defence, by T. M. Clark ; (7) Architectural Engineering, by Thomas C. Clarke ; (8) Superintendence in Architecture, by R. W. Gibson ; (9) Foundations of Buildings, by William R. Hutton ; (10) Government Practice, by Jeremiah O'Rourke ; (11) The Aëration of Cities and their Buildings, by Edward T. Potter ; (12) Library Buildings, by J. L. Smithmeyer ; (13) Some Considerations affecting the Development of Characteristic Style in the United States, by Henry van Brunt ; (14) The Use of Colour in Architectural Design, by H. Langford Warren ; (15) Fireproof Construction and the Practice of American Architects, by P. B. Wight.

Building Examinations. An Examination in Building and Sanitary Construction conducted by the Worshipful Company of Carpenters will take place on the 8th and 9th of next December. On the first day the Examination will last four hours, from 5 to 7 p.m. and from 7.30 to 9.30 p.m., and consist of written papers only ; on the second, it will commence at 3 p.m. and be oral, with one or more questions to be answered in writing if necessary. Among the subjects for examination are—Bricks, stones, limes and cements, with the methods of making and using mortar and concrete ; Timber, its decay and preservation ; Construction of walls, floors, and roofs ; Calculation of areas, cubic space ; Interpretation of drawings to scale ; Methods of setting out work, &c. ; Details of drainage and sanitary appliances ; Building Laws and By-laws. A course of seven lectures is to be given next October and November at Carpenters' Hall, to which intending candidates for this and future examinations are admitted, and they are stated to be especially suitable for Clerks of Works, Builders' Foremen, and others who are to be engaged in the practical construction of buildings ; though it goes without saying that young men intending to become architects would do themselves no harm by passing such examinations. Medals—gold, silver, and bronze—are offered to the three candidates who take the highest places respectively in the Examination.

The 1893–94 Examinations. The Preliminary Examinations, to qualify for registration as Probationer, and the Intermediate Examinations, to qualify for registration as Student, are fixed for the 14th and 15th November 1893, and the 20th and 21st February 1894 ; and in the case of the latter the oral examination will be held on the 16th November 1893 and the 22nd February 1894. The Examinations to qualify for candidature as Associate will be held during the week commencing 27th November 1893 and the week commencing 5th March 1894. The Statutory Examinations for Certificates of Competency to act as District Surveyor in London, and as Building Surveyor under local authorities throughout the country, are fixed for the 26th and 27th October 1893, and the 26th and 27th April 1894. The Questions set at the Examinations held last March will be published in *The R.I.B.A. Kalendar*, to be issued in October ; and meanwhile particulars of those to be held in London and some of the non-metropolitan centres this autumn may be obtained at the Office of the Institute.

REVIEWS. XII.

(30.)

A GREAT BUDDHIST TEMPLE.

Mahabodhi, or the Great Buddhist Temple under the Bodhi Tree at Buddha-Gaya. By Major-General Sir A. Cunningham, R.E., K.C.I.E., C.S.I. 4o. Lond. 1892. [*Messrs. W. H. Allen & Co., 13, Waterloo Place, London, S.W.*]

The name of this great temple has been generally known as "Buddha Gaya;" but Sir Alexander Cunningham shows that from the time of Hwen Thsang, in the seventh century, down to the present day, in documents and inscriptions the true name of the place has been "Maha-"bodhi." The people of the locality call it by this name, and it has no connection with the village of Gaya, which is six miles to the north of the temple. There were four great shrines in India connected with the events of Buddha's life. One was at Kapilavastu, where he was born; the next was Mahabodhi, where he attained to supreme wisdom; the third was the Deer Park at Benares,* where he began to turn the Wheel of the Law, or commenced to preach and expound the doctrines of Buddhism; and the fourth was at Kusinagara, where he arrived at Nirvana—*i.e.* the place of his death. Kapilavastu and Kusinagara had become deserted, and their positions were unknown; their sites were only brought to light again within the last twenty years by Mr. Carlleyle, one of the officers of the Archæological Survey Department, under Sir Alexander Cunningham's superintendence.† A stupa still exists at Sarnath to mark where Buddha began his mission of teaching. The site of the Mahabodhi, near Gaya, seems never to have been forgotten. It has been a place of pilgrimage for Buddhists from an early period down to the present day. It has been the Mecca or Jerusalem of the Buddhist world; and as Buddha was considered to be the ninth avatar of Vishnu, the Vaishnavas also visit it as a sacred shrine.

To those not familiar with the details of Indian geography, the position of this place may be found on the map by drawing the finger in a straight line from Calcutta to Benares, and at about two-thirds of the way the finger ought to be very near to the village of Gaya, and, as already stated, the sacred spot is about six miles to the south of that place. The district is now known as Behar, but in Buddha's time it was in the kingdom of Magadha, a country that was looked upon as the "Holy Land" of Buddhism.

The primal object of sanctity was the Bodhi-drûma, or "Tree of Wisdom," ‡ under which Buddha sat for six years in severe penance and contemplation till he arrived at Buddhahood. This tree still stands, and is yet an object of worship. The architectural remains at the spot were all structures which have been raised around this very sacred object. It would be natural to expect that the first erections would be of a simple kind. The Chinese Pilgrim, Hwen Thsang, states that Asoka "surrounded the Bodhi tree "with a stone wall about ten feet in height." Luckily, Sir Alexander Cunningham is able to show us what it was like. In his explorations of the Bharhut Stupa, he came upon a sculptured representation of the tree. The date of this work of art is about a century B.C. There need be no doubt as to what tree it is, for a Sanscrit inscription tells that it is the "Bodhi tree of the blessed "Sâkya Muni." This sculpture shows the *vajrâsan* or throne of Buddha, which marks the spot where he sat on the east side of the tree. Over this is a canopied erection; and from the fragments visible on each side it would appear as if a series of pillars, with bell-shaped capitals, formed a circular enclosure round the tree. These pillars stand upon a Buddhist railing, and another railing on the top, with a roof above it, forms a kind of architrave. Behind this the tree is represented, with a guardian on each side and a couple of *kinnaras*, or cherubs—one with a wreath of flowers in his hand—flying above. Two men are on their knees worshipping the throne below, while two attendants are close behind them. Among the sculptures at Bharhut, Sir Alexander found the Bodhi trees of the previous Buddhas, each with the seat or throne at their base; and this will account for the number of similar representations at Sanchi, where in each case the throne is shown at the foot of the trees. One peculiarity of these early sculptures is that there is no figure of Buddha in them. The *vajrâsan* or throne is empty. In the Bharhut sculpture there are a few flowers on it; these are in all likelihood the offerings of worshippers. Behind the throne are two representations of the combined symbols known as the Tri-Ratna or Trisul, and the Dharma-Chakra or Wheel of the Law. Sir Alexander, in his explorations at Mahabodhi, has come upon some of the remains of this early structure which surrounded the tree. Perhaps his most important discovery was that of this original vajrâsan or throne; it had been built over and quite covered up to form a vajrâsan for a later statue. It was formed of polished sandstone, and it had "four "short pilasters in front, exactly as depicted in the "Bharhut bas relief." In the plates a drawing of the throne is given, and it can be compared with the photographed reproduction of the sculpture. The General's conclusion is that the Bodhi tree had been removed westward, but the throne was left in its original position, and the great temple

* Now known as Sarnath.—W. S.

† See *Archæological Survey Reports*, vols. xii. and xviii.—W. S.

‡ It was a pipal tree, the *Ficus Religiosa*. The sacred tree in Ceylon is well known from its having been often noticed by popular writers, while the older one at the Mahabodhi is known only to few. The sanctity of the one in Ceylon is owing entirely to its having grown from a branch of the other, which was taken to Ceylon in the early part of the fourth century. This tree is a quick-growing one, and must in both cases have been often renewed, either by seeds or young branches.—W. S.

was built over it; and he deduces from this that the sandstone vajrâsana is the one that had been placed by Asoka in front of the tree to mark the exact spot where Buddha attained to supreme wisdom.

The Great Temple has long been a subject of discussion among Indian archæologists. Its history, as well as that of the Bodhi tree, has been mixed up with legend, and some of the inscriptions have been declared to be doubtful; but one reason which has led to the difficulties about it, is its anomalous character. Of the few Buddhist

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structures that Time has left in India it has no resemblance to any of them. The legend of the Brahmin who was inspired by Mahéswara to construct it, might perhaps explain that its appearance is closer to that of a Brahminical than to a Buddhist temple. But, again, its design is not in conformity with our ideas of what a Brahminical temple should be. The sikhara has no curve in it; its lines taper upwards, but they are straight. Its affinities are more closely allied to the Gopuras of Southern India than to the temples of the North. From the horizontal lines, which produce tiers superimposed upon each other, it might be classed as Dravidian. Add to all this that it has two storeys, and its difference from the ordinary Brahminical temple will be understood. These are some of the stumbling-blocks that have stood in the way of archæologists, and have led to differences of opinion as to the origin as well as the date of this monument. To this it may be suggested that as yet we have not realised all the types of buildings which India has produced in the past. As an instance, General Cunningham gives the details of one in this volume that is entirely new to us, and which will be noticed further on. The Chinese pilgrims supply evidence that in the Buddhist period towers were built that were not stupas; they were not solid structures, but had a *garbha* or cell in which a statue was placed. Hwen Thsang mentions two of these at Kapilavastu; in one was a statue of King Suddhodana, the father of Buddha, and the other had a statue of his mother, Queen Maya. At Kusinagara there was one of the "great towers" mentioned by Fah-Hian; it contained the figure of the sleeping Buddha. Another of these towers was at Benares, and we have a few details of it from Hwen Thsang. This tower was 200 feet high, and was surmounted by a golden *amalaka*. It had four sides—so it was square in plan; the niches were in "successive lines"—I presume that this means in tiers—with golden figures of Buddha in each. In the middle of this tower was a figure of Buddha, the size of life, represented as turning the Wheel of the Law. The Mahabodhi temple was 170 feet in height, not very different from the other, and it had all the features above given as belonging to the one at Benares, from which it will be understood that the two monuments must have been very similar in their general design. The constructive peculiarity of two storeys which is found in the great temple is not quite exceptional. The old temple at Koonch has this arrangement; Fah-Hian mentions a "two-storeyed" tower at Vaisâli. To this may be added the late announcement by Dr. Führer that he has found at Adhichhatra a two-storeyed temple of Siva.

If the above data be correct, it would go far to establish General Cunningham's assumption that the Great Temple is the one that Hwen Thsang saw and described in the seventh century, or at least that he saw one of similar dimensions and design. The building agrees, so far as the Pilgrim gives details, with his description. That they are the same bricks and mortar that stood there at the time of his visit is another question. The work has been rebuilt and undergone restorations so often that it may be like the man's gun: he said it was the gun he originally bought, but since then it had had a new stock, lock, and barrel. This may be true of the mass of the temple, but it has always

been supposed that some of the original work remained; and the General considers he has come upon portions of it on the north side, where he removed some buttresses of a late period. Photographed reproductions of what has been exposed appear in the plates: in these we see the original forms of the niches for the statues; the arches in them are evidently copies of the Buddhist chaitya cave arches, such as we see in the rock-cut caves of the first centuries of our era. The difference of form in these and the later restored niches is very striking, and it goes far to confirm the General's deductions as to the date of the first building of the Great Temple.

The history of the building and restorations of this Great Temple as now adopted by Sir Alexander Cunningham is that Asoka built the first one; according to Hwen Thsang, this was a small *Vihara*. It was replaced by the Great Temple about the middle of the second century A.D. According to one legend this was done by a Brahmin inspired by Siva, and in an inscription he is called Amara, supposed to have been Amara Sinha, one of the Nau-ratna of the court of King Vikrama. Another inscription calls the builder Naik Mahanta, and the General thinks, from evidence of various kinds, that he was merely the agent of the Indo-Scythian king Huvishka, who supplied the funds to work with. Some alterations and additions were made by Raja Pûrna Varma about 600 to 620 A.D., which was immediately before the time of Hwen Thsang's visit. The Burmese came in the eleventh century, and were six years and ten months engaged in a complete series of repairs and restorations. The time employed will in itself tell how complete the restorations and alterations must have been. The temple has had repairs done to it since then, but practically it has come down to us as the Burmese left it—a jumble of patchwork. This will explain the reason of the difficulties which have stood in the way of understanding the monument. General Cunningham's explorations have given us at last a glimpse into some of the details of the original structure.

Mention has already been made of a building having been discovered that is new to us in Indian architecture. The Chinese Pilgrim makes repeated statements about the places where Buddha walked, and the marks of his feet which were to be seen at them. From the Jellalabad valley, in Afghanistan, all the way to the Mahabodhi mention is made of these sacred walks. At the latter place, on the north side of the Bodhi tree, he says was the spot where Buddha walked up and down. In clearing out the ground around the Great Temple General Cunningham found this walk on the north side, exactly where it was said to have been. This pathway was called "Chankramana Chaitya," which means the place of the slow or meditative walk, which at a later time was called the "Jewelled Cloister." Eleven Persepolitan pillar bases were found on each side of the path, and the General comes to the conclusion that these supported a roof. The accuracy of the proposed restoration is completely confirmed from a representation of this Jewelled Cloister in one of the sculptures at Bharhut, where it is shown with a roof over it resting on pillars. That the sculpture is intended to represent the cloister at the Bodhi tree becomes a certainty from the following evidence. Hwen Thsang, in describing the walk at Mahabodhi, says that eighteen "miraculous "flowers" sprang up from the traces of Buddha's feet. These flowers are given on the pathway of the Bharhut sculpture, and there are exactly eighteen of them. If "Buddha's Walk" was of this cloistered form at one of the sacred spots, we may suppose that it would be similarly constructed at the others; and we have now brought before us a new type of building in the architecture of the Buddhist period, of which no one before seems to have had the slightest inkling.

The author devotes in the appendix a short notice to the subject of "Arches and Vaults." In this he states that formerly he shared the belief with Mr. Fergusson that the arches in the Mahabodhi temple must have been constructed after the Mohammedan Conquest. Now, from discoveries made while he was directing the Archæological Survey of India, he is convinced that arches and vaults were known to the Hindu architects; and he mentions examples of these which have been found. One is the vaulted chamber which enshrined the colossal statue of the Sleeping Buddha at Kusinagara, regarding which Sir Alexander says: "As "this statue was seen by Hwen Thsang in A.D. "637, the use of the arch was certainly both "known to and practised by the Hindus at that "time." The other examples are,—a vault in a mound at Nongarh, on the Kiyul River; a vault in the great brick temple at Bhitargaon, near Cawnpore; and another in the old brick temple at Barnârak, in Shahabad. The conversion of the General from one view of the subject to the other is in itself strong proof that he has had substantial evidence to guide him. Still, it has to be confessed that the date of the arches and vaults in the Mahabodhi Temple are yet doubtful. Sir Alexander says: "I am satisfied that the "arches and vaults which we now see did not "form part of the original construction." His evidence on this head is very strong. The cells of Hindu temples are square, and he assumes that the lower vaulted chamber was so at first; but it is now 20 feet 4 inches × 13 feet 4 inches. This encroachment upon the square plan resulted from a later wall having been built on two sides of the cell, to support the vault. This portion of the wall, it has been found, rested only upon the paved floor, and did not go down to the foundation like the outer and original wall. Other evidence is derived from the bricks, which are different in size. The front of the temple shows pointed arches, which are evidently insertions; while above them may be seen the form of the original opening, which is constructed with bricks overlapping each other. Again, in the original niches, which have been exposed on the north side, the circular form above is not constructed with voussoirs; the photograph shows distinctly enough that the bricks are laid in a horizontal position. If there are

thus doubts as to the arch principle existing in this great temple in its first erection, there must be some uncertainty about its existing in the other instances which have been mentioned. It is well known that the Hindu builders had an aversion to the arch, and if they practised it at an early period, they abandoned it in their later work. Still, I see no reason to suppose that the arch was unknown, and I should be inclined to think that it was used by them at a far-back date in at least some parts of India. In my Paper* on "Mud "Architecture" the idea was expressed that wherever mud, or sun-dried bricks—and burnt bricks may also be included in this category—were the building materials, the arch and the vault were known. We have the authority of Megasthenes, and the statement is repeated by Arrian,† that "brick and mud" were employed in some parts of India. Megasthenes had personal experience of Gangetic India as far south as Palibothra—the present Patna—and this is in the region where brick remains are now found. If brick builders on the banks of the Nile and the Euphrates had a knowledge of the arch and the vault, it is far from being probable that the brick builders on the banks of the Ganges were ignorant of these constructive forms. If, when stone was adopted by the people of India as their building material, they preferred to imitate trabeate forms, and neglected the arch, it is exactly what we know took place in the history of other well-known styles of architecture.

There is much that is tempting to write about in this old patched-up temple, which, from its age and character, opens up many questions for criticism; but enough has been said already to show the value of the present contribution to our knowledge which Sir Alexander Cunningham has produced. In the limited space left I should like to add a brief word or two about the writer, because, from his life having been spent in India, although well known to all acquainted with the architecture and archæology of that country, his name may not be quite so familiar to readers of this journal. He is the son of Allan Cunningham, the poet, from whom he, as well as his brothers, may be supposed to have inherited their literary and archæological tendencies.‡ He entered the Engineer Service in India, and as far back as 1835 he was exploring the Sarnath stupa, in the Deer Park near Benares, where Buddha first began to turn the Wheel of the Law. That is now close upon sixty years ago, and during that long period of time he has been almost constantly employed in connection with the archæology of India. He has explored stupas and the sites of ancient cities—the names only of many of these latter being known to us, till he dug up the mounds and identified them. In Indian archæology his labours have embraced numismatics and epigraphy—on which subjects he is a high authority—as well as architecture. For many years he was the Director of the Archæological Survey Department, the results of which are represented by twenty-three volumes. This is not the place to publish a bibliography of the man; it will be enough to say that to read the mass of material he has collected and published would in itself be more than a liberal education in the archæology of India. On retiring from the service a few years ago, he received the honour of knighthood. Sir Alexander is now close on his eightieth year; and those who read these few lines, which only suggest the faintest sketch of a long and distinguished—it might be added a unique—career, will, I am sure, wish that such a man may be yet spared to add to our knowledge from the ample stores he is known to have accumulated. WM. SIMPSON.

* See page 126 *ante*.

† McCrindle's *Ancient India*, pp. 68, 204.—W. S.

‡ Peter Cunningham, one of his brothers, was a well-known literary man, the author of Murray's *Handbook for London;* and at one time he wrote the column of "Town and Table Talk" for *The Illustrated London News*. Captain Joseph D. Cunningham, another brother, was an Engineer officer, and the author of what I have heard declared to be the best *History of the Sikhs*.—W. S.

(31.)

SEDDING'S ART AND HANDICRAFT.

Art and Handicraft. By John D. Sedding, Architect. 8o. Lond. 1893. [*Messrs. Kegan Paul, Trench, Trübner, & Co., Ltd., Paternoster House, Charing Cross Road, London, W.C.*]

In this work, by the late John D. Sedding, we have, garnered into a book, a collection of six essays and papers contributed at different times and places to different gatherings by the most enthusiastic Romanticist of modern English architecture, whose recent loss has been so deeply to be deplored. Well printed and pleasantly "got "up" (notwithstanding some carelessness in revisal of clerical and even grammatical slips), the book is eminently readable and suggestive, full of quaint diction and felicitous turns of phrase, full, too, of a certain glow of missionary fervour which lends emphasis and interest even to what is scarcely new, and the conviction of entire sincerity to all.

The book is, presumably, the last message that Sedding has for us (outside his individual work in architecture); needless to say, it is well worth careful study and consideration, not only as such, but for its real worth and merit, as well as for a literary charm and grace of style that are its own. To many a page one recurs with pleasure, and many a pregnant phrase lingers willingly when the book is shut. "Art is not a game of brag"; "Puritanism has a grim face"; "Art is the "speech of poetic minds"; "Old art played con- "tentedly with old themes"; Durham and Peterborough "suggest the big thoughts of big men of "big times." Throughout the volume there is a sense of style that is a pleasure in itself, scarcely ever laboured or even conscious, full of purpose, apt and easeful, with many a happy quotation deftly woven in. It were idle, of course, in a collection of essays brought together only after their author had passed away, to look for more than scattered teaching; but Sedding was in no sense

ever a systematic teacher, as every one of these papers strongly shows. They distinctly suffer, even the best, from a feeling of diffusion, a lack of strong grip and pertinent conciseness; they are discursive, as indeed their author acknowledges, with his usual aptness and serenity, when he speaks of his own "disjointed, unarchitectural "way."

The first paper of the series, a very admirable one in its way, instinct with vivid love for all English architecture of the past ("On the "Study of English Architecture," read to the Sheffield Architectural Society), is in the main a definite counterblast to systematic teaching, and certainly errs by doing scant justice to the really necessary, if prosaic, work of classification that has been done for us by Rickman, Sharpe, and others. "The professional scientist and text-book "maker, who acts as camel to the schools and "breadwinner to the profession, is not much "better [than the archæologist]. True, he "doesn't hack and mangle the old relics with "rough tools, yet is his handling no less ruthless "or disastrous to the work upon its poetic side, "for it strips it of wonder. He dissects styles, "marshals epochs, classifies examples, and spends "restless nights in coining illuminative descrip-"tive phrases for them. Yet, with all his zeal and "good intent, who shall say that the scientist sees "further into the art of the old structure under "notice than the rim of his gold spectacles will "permit?" (page 4). So far, indeed, did Sedding carry this feeling of opposition to systematic classification that the Renaissance itself almost ceases to be for him a definite break and line of demarcation; and much of his own actual work seems an effort to bear this out. But the principal thesis of the paper—the continuity of English architecture, its many-sided local character and contemporaneous diversity, its never-failing, if varying, excellences at all periods, and, above all, the need for studying it not from books but out-of-doors, "as it grew, where it grew, as one thing "from first to last"—is admirably insisted on with wealth of phrase and illustration that is never tedious, and that brings home how much this highest study of architecture has been lost sight of in the past.

Two essays are specially devoted to the handicrafts, one on "Our Arts and Industries," read at the Liverpool Art Congress in 1888, the other on "The Handicrafts of Old Days," a lecture delivered before the Whitechapel Guild of Crafts in 1890; both excellently adapted to their audiences, though the former is almost painful reading in its desperate appeal against the dreary surroundings and social conditions of the masses in our manufacturing towns to-day, and certainly deals out stern condemnation to the manufacturers. In both the theme is strongly insisted on that art in the handicrafts is from the worker, the art of the artisan. "If the fine arts have failed, it is because "art never can live a wholesome life or prosper "that is not related to the people at large nor "exercised for their pleasure. Art that is not "common to the people has failed in its mission, "as it deserves to fail." In the address to the Art Congress Sedding would almost seem to have felt himself out of touch with his surroundings, and a certain vein of pessimism and cry of pain (already noted) seems to run through his paper, as well as of warning and revolt; but in the lecture to the Guild of Crafts he is at his best, sparkling yet serious, full of inspiriting counsel and stimulus. The glories of bygone days in craftsmanship are fervently dwelt upon, yet not so as to dispirit the workers of to-day. Even machinery receives its due (though museums come in for heavy handling); a note of optimism breathes through all —"we need not envy the past, nor despair of the "future."

Addressing a different audience, a Church Congress at Portsmouth in 1886, Sedding took as his theme "Religion and Art," but the paper is the poorest in the volume. The atmosphere must have been again infectious, for much of it reads like a sermon, with vague generalities that are far from satisfying. Yet the essay deserved to be reprinted, if only for its vigorous and satisfactory onslaught on Puritanism. Rarely are home-truths so well thrust home. Again and again he returns to the attack with trenchant appreciation that is thoroughly refreshing. "The Puritan's "relation to art was wholly of a destructive "nature. . . . Art was to him inimical to devo-"tion. . . . Art is genial and expressive, Puri-"tanism is ungenial and repressive. . . . The "Puritan's gospel is a gospel of gloom, that checks "all joy and heart affluence. . . . But one by one "the arts have raised their heads and peeped out "from the warmer nooks."

In dealing in another essay with "Art and "Nature in Old Cornwall," originally contributed to *The British Architect*, Sedding is on thoroughly congenial ground. No one ever loved the outlying nooks of Cornwall better than he, nor appreciated more truly, though with all discrimination, the charms and merits of its modest architecture. In a paper such as this, discursiveness is a merit rather than a failing; while the bits of nature pure and simple are most delightful, full of the breath of the Atlantic, with the surge ever thundering in our ears. It is the most admirable instance of Sedding's own strongly urged injunction—"Be an out-door "student."

The last essay of the six that form this volume is the contribution offered to the Edinburgh Art Congress in 1889, on "Expression in Architecture." It was a paper to hear rather than to read; but it is still excellent in spite of blemishes (as, for instance, an unnecessary opening sentence, reminding one of Whistler, about "Mother Eve and "Tubal Cain"). The essay is a noble vindication of the art of architecture against the foolishness of her traducers and belittlers, from Ruskin downwards, and especially the particular foolishness of making sculpture not the "handmaid" but "the "soul" of architecture. Sedding's position is admirably put elsewhere, when he speaks of sculpture as "decorative masonry" and "decorative "carpentry"; though he is perhaps too much him-

self inclined to give prominence to the picturesque qualities of his art when he speaks of the architect as "a pictorial artist on a large scale" and as "a picturesque manipulator of vast forms." The whole essay is instinct with the loving insight of the artist doing battle for the honour of his art, and battling with complete success. Indeed, throughout the volume one feels an ennobling sense of how to such a man as Sedding his art is a part of his religion, how full of his best self is all his work, though utterly unselfish (in the lower sense). To read the book is to learn this lesson; a better lesson man cannot teach his fellow; it is hard that the teacher should have passed from us for ever. S. Henbest Capper.

(32.)

THE MONASTERY OF BATALHA.

O Mosteiro da Batalha em Portugal—Le Monastère de Batalha en Portugal. By the Vicomte de Condeixa. Fo. Lisbon and Paris, no date. [*Messrs. Williams and Norgate, 14, Henrietta Street, Covent Garden, London, W.C.*]

This book is well printed in Portuguese and French, and contains in the first part an essay upon the Gothic style of Architecture, followed by an account of the Order of "Our Lord Jesus "Christ of Portugal."

Some little time after the celebrated battle of Aljubarrata, which occurred in 1385, when Dom Jean defeated the King of Castile, fighting against him with about one-third the number of men, he commenced building the Monastery of Batalha, having previously made a solemn vow to the Virgin that if he succeeded in battle he would erect a magnificent Monastery to her honour.

The building is of the most elaborate nature, being in some parts overcrowded with the richest carving, and this is well represented by the plates given in the book, which are numerous and excellent. On looking at the building itself one is struck with its size as well as the minuteness of its detail, while the long lines of open parapets, although so rich, become quite monotonous. One of the chief features is the marvellous carving between the mouldings of the jambs of some of the doorways, and the great depth of the hollow behind it, which is over a foot, and shows up the carving in an unusually splendid manner; and although this carved ornament is illustrated to a large scale in the book, the plate fails to give the effect of the deep shadow between the ornament as seen in the actual work. When the centering to the square Chapter House was removed the keystone gave way and the vaulting came down with a tremendous crash. The story is well told of the architect who designed the present vaulting (which, like the former, has no supporting shaft): being unable to induce any of the workmen to remove the centering, he applied to the King, who permitted some prisoners who had been condemned to death to do this work, on the chance of being released, a task which they accomplished most carefully.

The architect, who was old and blind, was so convinced of the perfectness of his design that he vowed to the saints he would sit beneath the vaulting for three days and nights, and would neither eat nor drink during that time, and upon being visited at the end of the third day he was found still sitting there, but, alas! dead. An illustration is given of this man carved upon one of the corbels of the Chapter House.

Upon looking over this volume one feels a desire to see a similar work upon the Monastery of Alcobaça, which is referred to here as being quite as lofty as that of Batalha or Westminster Abbey. The building is of a much earlier period and has a far more dignified appearance; the cloisters are particularly fine, the capitals to the arcading being splendidly carved in a conventional manner.

In this church there are two separate monuments with recumbent effigies of a king and queen, placed foot to foot instead of side by side. In life they were devotedly attached, and the idea of placing the figures in this position was that at the last day they would rise opposite one another and so be the first to meet. The sides of these monuments are profusely carved with sacred subjects under rich canopies.

In the kitchen of the monastery is what appears to be a tank, with steps on each side leading down to the water, and iron gratings at each end; but the water is really a small river flowing through the kitchen, so that the monks were accustomed to put the fish that they caught into this place, where they would be kept fresh until required.

John Medland.

(33.)

LIGHTNING CONDUCTORS AND GUARDS.

Lightning Conductors and Lightning Guards. A Treatise on the Protection of Buildings, of Telegraph Instruments, and Submarine Cables, and of Electric Installations generally, from Damage by Atmospheric Discharges. By Oliver J. Lodge, D.Sc., F.R.S., &c., Professor of Physics in University College, Liverpool. 8o. Lond. 1892. [*Messrs. Whittaker and Co., 2, White Hart Street, Paternoster Square, and Messrs. George Bell and Sons, York Street, Covent Garden.*]

The use of lightning conductors in this country is perhaps confined to churches and other important buildings, powder-magazines, and erections in exposed positions; the ordinary dwelling house is not, as a rule, in sufficient danger for its owners to think about its protection. The construction of a conductor, however, when suggested by the importance or position of the building, is so distinctly within the province of the architect, that any new views on the subject require his close attention; and in Professor Lodge's book he will find much to interest and even to amuse. The work suffers somewhat from want of consecutive arrangement, and repeats itself more than once, so that a summary of its teaching is by no means easy to construct. It is written throughout in a clear, vigorous style, and is copiously illustrated; many beautiful lightning photographs are reproduced, and the experimental diagrams are clear and well arranged.

In the introductory chapter, the author suggests that we live between the coatings of a Leyden jar—the upper coating being the sky, the lower the earth, and the air the non-conductor between; the electro-motive force needed to "spark" across this air-space is shown to be about 5,000 million volts, and, lest such figures should appal rather than instruct, let us remember, as stated later on, that a spark one millimetre long requires a difference of potential of 3,000 volts—to compare this with a lightning flash is very suggestive.

In Chapter II. we find the first reference to the author's view that lightning flashes, as a rule, are oscillatory, the "charge" surging up and down the conductor until it is exhausted, though the whole operation takes less than a second of time, and on pages 15 and 16 we find passages which have become famous, as—"For a flash to leave a "fine thick copper conductor on a tall chimney ". . . and begin knocking holes in the brickwork "in order to make use of the soot, or the smoke, "or some bolts, or other miserable conductors of "that sort, because it is not satisfied with the "moderate allowance of earth provided for it . . . "is evidence either of simple perverseness or else "of something more deep-seated, and not yet pro-"perly called attention to." And—"Why not "insist upon having not only a good earth, but "also a good sky?" And—"However bad an "earth may be, it can hardly be worse than one "afforded by soot, and bricks, and yards of air."

Here, then, is the author's point: lightning conductors constructed in accordance with the recommendations of the Lightning Rod Conference have failed, and, as there is nothing else to be blamed, the "earth" has always been said to be in fault; if it had been otherwise, the discharge must, according to what Professor Lodge calls "the drain-pipe theory," have quietly passed into the ground. But is the drain-pipe theory correct? Are conductivity and sectional area the only essentials? Will the lightning always follow the same path as the current from a couple of Leclanché cells? To these questions Professor Lodge returns an emphatic "No!" and proceeds, by experiments, to endeavour to prove his case. Mention has not been made of Chapters III. and IV., which, though rather discursive, should be read with care; the former contains valuable suggestions for protecting buildings, which would have been better if incorporated with Chapter XVIII.; and the latter (pp. 29–30) contains a vigorous attack on the older theories, concluding with an illustration from the behaviour of water-pipes which makes the meaning clear—what the old rules take no account of is electrical inertia—lightning "is no gentle push, it is a "terrific blow."

The experiments are too numerous to be described in detail, but that of the alternative path (p. 33) is typical and most instructive. The discharge from two Leyden jars, representing a lightning flash, has offered to it two paths—it can spark across the space between two knobs, or it can pass through a metallic conductor. Strange as it may seem, the flash, made to occur suddenly like lightning, *will rather jump across an inch or more of air* than pass through a copper rod a quarter of an inch in diameter, having a resistance far less than most lightning conductors; and, stranger still, if only the old ideas are considered, it will spark a longer distance to avoid the copper wire than it will if the latter is replaced by iron, though the resistance of the iron is 1,300 times the other to a quiet, continuous current. This experiment, the significance of which Professor Lodge's critics have not been able to seriously dispute, shows the enormous difference between a lightning flash and a steady current; it explains many accidents to buildings protected in the orthodox way; and it points to the desirability of increasing the number of conductors on a building, instead of concentrating the protection in one, so that the energy of the flash may be dissipated in as many directions as possible, as the resistance of *any* one path may, to a sudden stroke, be so immense.

The most perfect protection can only be obtained by the old plan of the wire-gauze house; enclose your building entirely in a network of metal and no flash can hurt it. Now that galvanised iron is so cheap it would seem that it is the best material for powder-magazines, which should be covered with iron entirely—roof, floor, and walls—care being taken that all conductors passing into it are connected to the covering at the point where they pass through it (p. 71).

At the Institution of Electrical Engineers (see p. 229), during the discussion of Professor Lodge's Paper, the President (Sir William Thomson), while agreeing in many points with the lecturer, suggested that, instead of carrying his wires down to earth, they should be connected to the water-pipes. The President was, no doubt, thinking of the country house where the rain-pipes go down into the ground to soakaways or rain-water tanks. In the far more numerous cases where, by modern sanitary regulations, they discharge over open gulley traps, such a system of connection would probably be dangerous.

Passing by the interesting matter in the intervening chapters, we find, on p. 118, a comparison between the old and new views which is very instructive; the author has endeavoured to avoid exaggeration on either side, so the statement that a man might safely grasp a properly constructed conductor during a thunderstorm, "even though "the lower end were surrounded with gunpowder," has been omitted. It was stated in one of the discussions that the War Office would be glad to provide the gunpowder if any adherent of the old views would like to try this interesting experiment. Professor Lodge's investigations on "side "flash" from perfectly earthed conductors, confirmed by those of Professor Hughes and others of earlier and later date, show that such ideas of protection are illusions, and a case in which a magazine was exploded may be found on page 193.

Chapter XVIII. is called "Practical Questions"; but its page-heading is "Suggested Practical "Rules," and the latter describes it best. It would have been far better if the author's criti-

cisms on his rules had been combined, as notes or otherwise, with this chapter, instead of being on page 237. The two have to be read together, and to do this is most inconvenient when they are thirty pages apart. The question of connecting lead flats and other masses of metal to earth or to the conductor seems to be the most difficult to settle—the balance of opinion seems to be in favour of connecting them to the conductor *and* to the earth (Sir W. Thomson, p. 229).

The chapters on the protection of electric light leads, telegraph wires, and instruments connected to them (commencing p. 375) are full and well-reasoned, and the "Lodge" lightning guard seems to be the logical result of the experiments and observations. It seems doubtful, however, whether protectors are needed for ordinary installations of electric light, at any rate in towns. It is probably wise to protect central stations, and private buildings where there is expensive machinery to be damaged; but ordinary house-wiring can hardly be more dangerous than the wires to telephone and telegraph instruments, provided that the mains are well guarded at the station. But "surgings" in the underground mains *may* cause sparks to pierce the insulation of flexible cords, &c., or break lamps, as in the instance mentioned on page 516.

In conclusion, the study of Professor Lodge's book may be confidently recommended as a scientific exercise in a matter of great interest; and, as its author hopes, before many years have passed, the results of experiments with actual thunderstorms, undertaken by the Eastern Telegraph Company and others, will enable a sound theory to be constructed which, subscribed to by both "old" and "new" professors, will enable us to protect our buildings thoroughly against this most terrible of the forces of nature.

R. Langton Cole.

LEGAL & PARLIAMENTARY NOTES.

Architects' Charges.

Farthing *v.* Tomkins.

This case is interesting by reason of the observations made by the Lord Chief Justice—Lord Coleridge—respecting the charge of 3 per cent. upon the estimated cost of works not carried out.

In the case of "Burr *v.* Ridout," a report of which appeared in this Journal of 2nd March last, Lord Coleridge expressed similar views on this customary charge of architects for works not executed, and his reference to the gentleman who was asked by an architect to pay commission on £150,000, when the intention was to expend only £50,000, was made to the jury to illustrate his Lordship's views that such charge by commission was open to the gravest objection. The remarks made in the case of "Burr *v.* Ridout" led to some correspondence between the President of the Institute and Lord Coleridge, which will be found printed in this Journal for 30th March last—and his Lordship there states more specifically the case of the extortionate claim above referred to.

The following extracts from *The Times* of the 5th and 6th inst., give a report of the case to which I am now calling particular attention:—

This was an action by an architect for £408 on a balance of account arising out of the rebuilding of the Provence Hotel, Leicester Square, and it raised again the important question which arose in this court in a case of "Burr *v.* Ridout," reported in *The Times* of February 22 last, and constantly arising—whether where, from want of funds or some other cause, a building is not erected, the architect is entitled to charge commission. The defendant had engaged, as he said, to employ the plaintiff upon condition that he should submit plans which could be carried out for £8,000, and no more, and also on condition that he should procure the necessary finances, but which conditions the plaintiff, as the defendant alleged, had not fulfilled, and therefore, the defendant said, he had dismissed him. The plaintiff, on the other hand, claimed "on balance of account rendered for profes-"sional services as architect and surveyor in connec-"tion with the proposed rebuilding," also in connection with certain finance negotiations, £523, giving credit for £115 as paid on account, leaving a balance of £408; while the defendant contended that the £115 paid was enough for any services rendered.

Mr. Witt, Q.C., and Mr. Rose-Innes were for the plaintiff; Mr. H. Dickens, Q.C., and Mr. F. Low were for the defendant.

The matter had arisen in this way. In June 1890, Mr. Tomkins had purchased the lease of the hotel, and the idea was to pull it down and rebuild it, with the consent of the landlord, who was to be consulted as to the plans. Mr. Farthing, who had already acted for the previous lessee, was employed by Mr. Tomkins in June 1890, and was engaged in the business until October 1892. In July Mr. Farthing was invited to prepare plans, and on August 22 Mr. Tomkins wrote to him that Mr. Tulk, the freeholder, required at least £8,000 to be expended on the building. In December 1890, the tenders were opened and sent to Mr. Tomkins. The lowest, by Messrs. Avis, was for £11,800, the next was by Leslie's for £12,057. Mr. Tomkins wrote to Mr. Farthing acknowledging the tenders, and said, "I presume you will accept Messrs. Avis's," which he did, and then Mr. Tomkins wrote to Mr. Farthing to prepare "complete drawings and specifi-"cations." For some reason, however, they could not get on with Avis, and so recourse was had to Leslie; but he required security, as to which there was a difficulty, and as neither Avis nor Leslie could be got to undertake the contract, and the plaintiff failed to obtain the required advances, in November Mr. Tomkins wrote to Mr. Farthing not to take any further steps, as he was not satisfied with the plans nor the price, and, as he was dissatisfied with the manner in which the business had been managed, he had taken it out of his hands and had put it in the hands of another surveyor; to which Mr. Farthing replied that Mr. Tomkins had approved of the plans, and that the price was not limited to £8,000. Mr. Tomkins, however, adhered to his determination, and then came Mr. Farthing's claim for remuneration for his services. There was a charge of £10 10s. for preliminary plans, and commission on the amount of the lowest tender at 3 per cent., £354. Then some supplemental charges for obtaining the approval of the licensing justices and the landlord, negotiations as to party wall, &c. Then came a charge of £108 for services in attendances and negotiations in endeavouring to ob-

tain advances, and "conferring with fifteen principals "and solicitors, and using best endeavours to secure "the objects in view, involving 110 separate attend- "ances on 108 separate days, and 173 letters," &c.; total, £523, on which £115 had been paid on account, reducing the claim to £408.

Mr. Witt, in opening the case, said this part of the claim was not for services ordinarily rendered by architects, but in this case had been requisite, as Mr. Tomkins was unable to find the money or give the necessary security. The work done had ranged over nearly two years—from June 1890 to October 1892—and as to the defence set up, that the cost was not to exceed £8,000, it was, as the letters showed, a mere pretence. The plans, drawings, and specifications had been, with the assent of Mr. Tomkins, made out for an expense of £11,800, and the architect was entitled to his commission upon that amount.

The plaintiff being called and giving evidence as to the work done, Lord Coleridge asked what was the defence as to this?

Mr. Dickens said the cost was to be £8,000, and it was found that it would be over £12,000, and the defendant could not raise such an amount, and so the plans were useless, and the sum the plaintiff had been paid was sufficient for the services he had rendered.

Lord Coleridge desired it to be understood that he should not allow the plaintiff to recover for more than work done. He did not understand the claim of commission at 3 per cent. on the £11,800. Such claims had, he said, been set up on former occasions, and on the authority of the Institute of Architects, but had never been allowed.

Mr. Witt said the full work had been done—the plans and specifications drawn, and the quantities calculated—and it was not the architect's fault that the building could not go on.

Lord Coleridge said the work of the architect for which the commission was to be paid had not been done; the building was never done.

Mr. Dickens said there was a similar case, "Burr "*v.* Ridout," in which his Lordship had ruled in the same way.

Lord Coleridge said he should always so hold. The architect in such a case could only recover for work done.

The examination of the plaintiff was continued in support of his claim. He stated that the defendant himself had desired him to "take out the quantities," and he had had them taken out. But both the contractors—Avis and Leslie—required security, which the defendant could not give.

Lord Coleridge.—The building work was not done.

Mr. Witt.—The building was never erected.

Lord Coleridge.—And the main charge made is 3 per cent. on the estimated cost of a building never erected.

Mr. Witt.—On the sum it would have cost.

Lord Coleridge.—If it had been erected; as it was not, there is, I think, no pretence for such a claim, and I will never allow it. I consider it improper and unfair. The architect is entitled to fair charges for the work he has done, the plans he has prepared, &c., but not to commission on a sum which has never been expended—on a building which has never been erected.

Mr. Witt, to plaintiff.—Is it a usual charge where the building has not been carried on by reason of the default of the building owner?—It is.

Lord Coleridge.—The question is not admissible, and I do not take the answer.

Mr. Witt.—Is the sum of £354 a fair charge under the circumstances for the work done and services rendered?

Lord Coleridge.—That is not admissible; it is the same question in another form; his charge is for 3 per cent. commission on £11,800. That would be for the supervision of the building which has not been erected. Why cannot he be content with a fair charge for the plans and drawings and specifications and the other work done, without charging for commission on buildings never erected? Certainly, though 3 per cent. was not the way to get at it, the plaintiff ought to be fairly remunerated for his services.

Mr. Dickens said the plaintiff was to get an advance, and failed to do so on account of the amount, and hence the scheme failed.

The plaintiff said he had nothing to do with getting the money.

Mr. Dickens.—Why, you have charged £115 for trying to get it!

Lord Coleridge, to plaintiff.—You can hardly say you had "nothing to do with getting the money." It seems to me £115 is too little. On one side you have asked too much; on the other you have paid too little. The defendant should have told Mr. Farthing a year or two ago that until the money was found he must not take a step.

At this point negotiations took place between counsel, which resulted in their proposing to leave the matter to the arbitrament of the Lord Chief Justice. His Lordship at once assented to this, and saw the leading counsel on both sides in his private room, and afterwards saw the parties personally.

. . . . . .

The Lord Chief Justice gave his decision. . . . The action was by an architect and surveyor against his employer, and the question was whether, the building not having been erected, the architect was entitled to recover . . . 3 per cent. commission on the amount of the lowest tender—£11,800—£354. The contractor required security, which the building owner was not prepared to give; and the architect having in vain endeavoured to obtain an advance for him, he threw up the project. Besides minor charges for surveys, &c., there was a charge of £108 for these negotiations. The total claim was for £523, of which £115 had been paid, leaving a balance of £408, for which the action was brought. The Lord Chief Justice expressed his opinion very strongly, as he had done in a former case, reported in *The Times* 22nd February last, that in such a case the architect was not entitled to recover commission on the estimated expense of a building never in fact erected, as that would include payment for supervision of the work; but, being pressed by the plaintiff's counsel as to his right to be remunerated for the plans and specifications and working drawings which had been prepared, as well as for the "quantities," which to a large extent the plaintiff said he had taken out, his Lordship expressed his opinion that the amount paid was not sufficient, so that the plaintiff would be entitled to a verdict; so that it became a mere question of amount, which he suggested should be settled amicably—upon which the parties agreed to leave it to his Lordship—and he then saw the parties and their counsel. . . . His Lordship said he was confirmed in the view he had taken yesterday—that the judgment must be for the plaintiff; that the defendant, in fact, had not paid enough, though the plaintiff had claimed too

much. He did not see his way to giving the plaintiff all he asked, but proposed to give him—beyond the £115 paid—the sum of 200 guineas or £210, with the costs; and he gave judgment accordingly.

It may be that all the essential particulars of Lord Coleridge's illustration respecting the £150,000 have not been stated, and, were they so stated, it is possible that a somewhat different complexion would be placed upon the case, which certainly looks very black as it is painted; but I do not, of course, suggest for one moment that his Lordship has not sufficient ground for his illustration.

But with the charge of 3 per cent. made by Mr. Farthing we enter upon a clear issue. Here an architect exercises his brain, and brings to bear all his experience and skill in perfecting a design, in completing the working drawings, writing a detailed specification, obtaining tenders for the work, and placing his client in a position to finish the building, less only the superintendence of the work in progress, and the furnishing of those further particulars which are usually done by the architect on the building itself.

I was employed to give evidence on behalf of Mr. Farthing (but was not called, as the case was settled as reported), and had an opportunity of seeing his drawings and specification, and ascertaining the nature of the work he performed; and most certainly he had well earned the proportion of the full charge of 5 per cent. to which he would have been entitled,—as the Lord Chief Justice admitted,—had the work been carried out from his designs.

I must say that I am unable to understand his Lordship's reiterated remark that he will never allow such a charge to be made for works not carried out. It is clearly and incontestably, so far as the architect is concerned, for work *done*. If, as his Lordship agrees, 5 per cent. is a reasonable and proper charge when the building *is* carried out, and *all* the architect's work, *less* the superintendence, has been done when the building is not carried out,—and that from no fault of the architect,—surely he is entitled to the admitted proper charge, with a deduction for that part of the work not done! And if then it becomes, as it should become, only a question of what amount that deduction should be, undoubtedly a body of architects is better able to form a reliable opinion than a Judge upon the Bench. His Lordship, however, cannot be induced to look at the matter in this light; and in Mr. Farthing's case, Mr. Witt, Q.C., knowing his Lordship's views, very carefully abstained from mentioning the Institute scale at all; but, notwithstanding this, his Lordship felt bound to drag that scale in, and to comment upon it in his accustomed manner, and, until some one convinces his Lordship that he takes an erroneous view of the architect's work, no doubt every architect who comes before him with such a charge will meet with the same treatment as that accorded to Mr. Burr and to Mr. Farthing.

But it must be stated that Lord Coleridge allowed his hard views to be softened in Mr. Farthing's case. Mr. Farthing gave his evidence clearly and well, and proved to his Lordship that the work for which he had charged had been fairly performed. His specification was a detailed one, his detail drawings had been prepared; and had it not been so shown his Lordship would not have awarded Mr. Farthing so much as he did. This fact should be borne in mind by architects, who will do well to fairly perform their task for the charge made. Further, if his Lordship adheres to his present views, architects who are compelled to go to law for the recovery of their charges will be well advised if they base them, not on any percentage or commission on estimated cost, but upon the work actually done, keeping before them the fact that the 5 per cent. is admitted to be fair. This is a difficult work, however, to throw upon the architect, who will be often puzzled to book the time occupied in thinking out a design; which is frequently done at all sorts of places, in jotting down his brainwork at almost every minute of the day, and in keeping a careful record of the office work and expenses of each particular job. But if the commission basis is to be disallowed, what other method is left open for the unhappy architect, who, having fairly earned his remuneration, is thrown over, on the flimsiest pretence, by a client who takes it into his head to go to fresh woods and pastures new?—Wm. Woodward.

"Work Done."—Can no one make it evident to the mind of the Lord Chief Justice of England that an architect's work does not consist only in superintending the erection of a building, but in making out and studying the plans and designs for it, and that the latter is often the most important and laborious portion of the work? . . . . . In trying the case of Farthing *v.* Tomkins, in which the plaintiff claimed 3 per cent. for commission on a building planned but not carried out, we find the Judge again reciting his former superstition that an architect has done no work unless he has produced a building. . . . . We presume, on the same principle, Lord Coleridge would decree that if a solicitor had drawn up the necessary deeds, say for a large transfer of property, and the intended dealing with the property was afterwards abandoned, the solicitor would have no claim to any fees. That is a strictly parallel case, and we should like to hear what lawyers would say to the proposal to apply the same treatment to them. We have no particular sympathy with the plaintiff in this case; he seems to have gone into a good many matters which were not architecture, and he claimed commission on £11,800 because the builder's estimates had come to that, although he had been instructed to prepare plans for a building to cost £8,000. We have always been of opinion that in such a case, when the building is abandoned, the architect ought not in honour to charge commission on more than the sum he was instructed to spend. But for the highest Judge on the Bench to assert that in such a case an architect has no right to the half-commission on the most important part of the work, which he has already done, affords a most extraordinary instance of the want of logic which occasionally characterises the legal mind.—*The Builder*, 8*th inst.*

No. 9, Conduit Street, Hanover Square, London, W.

A SCHEME FOR STREET IMPROVEMENTS IN LONDON.

A few months ago Mr. Cawston brought his ideas for the improvement of London before the Art Standing Committee of the Institute. It attracted much attention and interest on the part of individual members, and the Committee, though not seeing a way to endorse all Mr. Cawston's views, encouraged his reading a Paper on the subject. This he did at a General Meeting of the Institute held on the 30th January 1893 [see page 159 *ante*].

The presence of Mr. Frederic Harrison, Dr. Longstaff, and other prominent members of the County Council, gave interest to the debate which followed, but the feeling of the Meeting was distinctly adverse to Mr. Cawston's views; the minds of members were evidently not prepared for so revolutionary a project. Nothing daunted, however, he then announced his intention of speedily laying before the public in book form the conclusions to which his study of this vast subject had brought him. Mr. Cawston has not been long in fulfilling his intentions. His book * is now before us, illustrated by two maps of Paris (Mr. Cawston's beau-ideal of an improved city, with one-fourth of its area devoted to streets and open spaces), with two maps of London showing the way in which Mr. Cawston would effect similar improvements here,† and numerous illustrations in photogravure of actual street scenes in Paris and Vienna, and ideal views of London, as improved by our author, from the pencil of Mr. J. C. T. Murray.

Mr. Cawston is to be congratulated on the boldness of his conceptions. A first glance at his map makes one's hair stand on end. Our parks are riddled by gigantic thoroughfares, and the sacred purlieus of the Law share a similar fate. Our conservative prejudices in favour of things as they are receive a rude shock, and buttoning up our pockets we ask in dismay, "How is all this street revolution to be paid for?" The expense of our puny attempts in the way of new thoroughfares has hitherto been enormous, owing to the sums paid for compensation, fees, and so forth; and the result, for the most part, very inadequate. The beauty of our city does not appear to have been much enhanced thereby, nor has the traffic through our streets been greatly accelerated, always excepting what has been effected by the Thames Embankment. There may be much, therefore, to be overcome before the public take kindly to Mr. Cawston's proposals.

On perusing his work, however, we find that Mr. Cawston argues with convincing effect that London hitherto has been treated too much as a congeries of towns or estates

* A Comprehensive Scheme for Street Improvements in London, accompanied by Maps and Sketches, illustrating the principles on which the scheme has been prepared and the reasons for their adoption. By Arthur Cawston, A.R.I.B.A. 4o. Lond. 1893. [Mr. Edward Stanford, 26 and 27, Cockspur Street, Charing Cross, S.W.] The book is in the Library.

† These Maps are (1) Central London; (2) London, from Kensington to Whitechapel; (3) Paris, East; and (4) Paris, West.

having little or no common vitality; the improvements as yet effected have for the most part been a mere tinkering at the defects of thoroughfares fitted for a city of a tenth the size of the London of to-day; that the absence of a well-considered plan for the whole of the area has led to these costly and abortive attempts to improve the facilities of locomotion, and to the formation of streets which might almost as well end in a *cul-de-sac* at once, since they do not form part of a continuous route. (See the remarks on the Council Broadway, p. 71.) Our author thinks that, the metropolis being now under the sway of its County Council, the time has come for piecemeal nibbling at this gigantic task to be set aside, and a comprehensive scheme determined upon to facilitate communication in every direction, and especially to and from our railway termini and the centres of business and attraction. He would have this scheme prepared by those experts most qualified for the task, and made so widely public as to stimulate a general interest in the question. Those who pay ought doubtless to be informed for what they pay, and should be allowed to make their voice heard in intelligent criticism on the schemes proposed. In this way alone can any enthusiasm for the great work be expected.

Mr. Cawston tells us there are two ways of effecting these vast improvements. One is what he calls the "automatic method," which consists of the widening of a street by the dilatory process of setting back the frontage of a house whenever it is pulled down to be rebuilt; and the other, which he styles the "municipal method," of cutting a new street through decaying and comparatively worthless property, and so at once bringing fresh air, life, prosperity, and architectural beauty into slums which are now languishing in the absence of such amenities. The latter procedure would appear to have the advantage of comparative economy and speed, and to some of us it would have an added attraction, wherever it could be resorted to, in its leaving the streets with which we are most familiar intact, thus preserving whatever of antiquity there is about them, and avoiding the jagged line of frontage which the automatic method would probably give us for a couple of generations to come.

Our author tells us, moreover, how the cost of such improvements could be defrayed; but neither the space at my disposal nor my knowledge of this part of the subject will permit of my following him into it, though what he has to say about it makes interesting reading. His proposals he reckons would bring in an income of from two to two and a half millions per annum, which should be devoted to the gradual development of the comprehensive scheme.

By far the most exciting part of the work before us is the Cawstonised map of London. Take, for example, our author's approach to St. Paul's (N.W. angle), from Kensington High Street, through Kensington Gardens, Hyde Park, and the south side of Lincoln's Inn Fields: a magnificent thoroughfare of upwards of four miles in length, availing itself of no existing street of importance, except Mount Street, Mayfair. Nor is this all he proposes to do for Wren's great monument. It has another grand approach (S.W. angle) from the end of the Embankment; and there are three other fine views of St. Paul's opened by new streets from the N.E., N., and S. Another most useful route suggested is that from the centre, not the side, of Victoria Station, in front of Buckingham Palace, through the Green Park, to Portland Place, taking Hanover and Cavendish Squares on its way. The route from Waterloo Bridge to the British Museum is an old friend, advocated by more than one of us on former occasions; but Mr. Cawston, carrying it right and left around this appropriate centre, branches off on the N.E. to the St. Pancras and King's Cross termini, to Euston on the north, and to the future Manchester, Sheffield, and Lincolnshire Railway terminus on the N.W.

There must be details in every great scheme which one likes less than others, and what Mr. Cawston would do in the way of "opening out" St. James's Park I confess does not commend itself to me either on plan or from the illustrations on page 51.

Asphalt or wood pavement is not, after all, the most alluring thing in life, and though a road through the Park, and even a bridge across the ornamental water, may be a necessity, and give a glimpse of beauties almost unknown to many Londoners, they should surely be contrived without destroying the sylvan character of the Park, and certainly without a meeting of five roads in the centre of the lake, even though presided over by a statue of Her Majesty the Queen.

The arrangement of the roads across Hyde Park, on the other hand, seems to me on the whole excellently contrived. Advantage has been taken of the existing ones to some considerable extent, and the way to the Great Western Railway from the south much improved. The great group of public buildings at South Kensington are brought into fairly direct communication with the Abbey and Houses of Parliament by a prolongation of Cromwell Road through Hans Place, and the new Imperial Institute Road is carried eastwards into the Brompton Road. The lovers of nature will no doubt at first be hardest upon Mr. Cawston's treatment of the Parks: a careful study of his plan, however, will, I think, convince most of them, as it has at any rate one of their number, that so far as concerns Hyde Park, Regent's Park, and the Green Park, the roads (treated as they ought to be) would greatly add to the public enjoyment of these characteristic and highly-prized features of London, while they would of course add enormously, and at very little expense, to the facilities of communication.

To revert again to the illustrations, there is among the number a most instructive one showing the deterioration in the design of lamp-posts since the days when the architect of the Metropolitan Board of Works had these matters under his care.

For the most part, however, I think the illustrations do Mr. Cawston's proposals an injustice by seeming to substitute great voids for the sylvan mysteries of our open spaces. If Lincoln's Inn Fields are thrown open to the public, it is to be hoped that the trees need not be reduced to the sparse numbers and dimensions of those shown on plate opposite page 54. The plane tree of London constitutes one of the vast city's peculiar charms, and it is greatly to be doubted whether anything, where it can flourish without interfering with light and convenience, ought to be allowed to take its place.

But I carp at minor details. Mr. Cawston's central idea is this: that a comprehensive scheme, not necessarily his own scheme, for the improvement of the streets of London, should be devised, and that immediately; that in its elaboration the advice of experts most competent to give it should be retained, so that the plan should not only be the most practically convenient possible, but that it should secure our existing architecture being seen to the greatest advantage, as well as affording well-considered sites for future public buildings; that in carrying out this comprehensive plan, whenever a new street dislodges any considerable number of our working population, means should be simultaneously taken for their being housed elsewhere in health and comfort; that the cost of these works should be spread over many years, and that we should not run into further debt for their execution, but only spend each year what has been raised for this purpose during the past twelve months. His idea seems to me eminently practical and sensible, and one which will sooner or later find favour. It is to be hoped sooner rather than later, for every year lost in inaction will increase the difficulties of the great problem and the cost of its ultimate solution.

ALFRED WATERHOUSE.

*** In relation to the subject of Mr. Cawston's book, a Paper read by the late Sir W. Tite, on "Paris Street Improvements and their Cost," with a discussion thereon, will be found in TRANSACTIONS, 1863–64, pp. 48–76; and another by Mr. F. Hooper [*A.*], on "Building Control and Administration, and on the Maintenance of "Public Buildings in France," in TRANSACTIONS, Vol. V., N.S., pp. 13–32. Mr. Woodward's Paper on "London as it is and as it might be" will be found in TRANSACTIONS, Vol. II., N.S., pp. 13–64.

WORKING-CLASS DWELLINGS

In Paris and Provincial Towns of France.

Extracts from The Godwin Bursary Report 1892.

Mr. President and Gentlemen,—

I have the honour to submit to you a report on the planning, construction, hygiene, and cost of the latest works provided in Paris and some of the large provincial towns of France for the housing of the poor. The suggestion I submitted to the Council towards the close of 1891 was "an "analysis of the model dwellings for the working "classes in Paris." After a very short study of the subject, however, I learnt that many of the large provincial towns had executed noteworthy works of this nature, and you kindly endorsed my decision to report on the work done in other towns besides Paris.

On Sunday, the 15th of May 1892, I left England for Paris, visiting also several provincial towns, and returning to London after an absence of five weeks. Besides this period, spent in surveying and examining a large number of dwellings, portions of July, August, September, and October were occupied in preparing this report and the drawings which accompany it.*

Concerning this question of the housing of the poor, the needs of the case are not so pressing in France as in England; the congestion and centralising of population, though considerable in the large towns, do not call so strongly for the wholesale reforms which are being carried out in this country. Bad building, overcrowding, and particularly insanitary dwellings, do exist however, and in and around Paris there are some deplorably bad quarters. Very considerable and effective results have, however, been brought about by various societies and by private effort in the improvement of the plan, construction, and situation of the poor citizen's home, and it is to a description of some of the best of such results that I have to draw your attention.

In Paris some of the most interesting societies concerned in model dwellings for the poor are: the Société Française des Habitations à bon marché, the Société Philanthropique, the Société Anonyme des Habitations Ouvrières de Passy-Auteuil, the Société Coopérative Immobilière des Ouvriers de Paris, the Association Protestante de Bienfaisance, the Société Anonyme des Habitations Économiques de Saint-Denis; and amongst those of interest in other towns are: the Société des Cités Ouvrières à Mulhouse in Alsace, the Société Anonyme Immobilière des Petits Logements in Rouen, the Société Havraise des Cités Ouvrières, the Société "Le Cottage" at Oullins near Lyon, the Société Anonyme des Logements Économiques de Lyon, the Caisse d'Épargne et de Prévoyance des Bouches-du-Rhône, the Société Immobilière d'Orléans, the Société des Logements Salubres et à bon marché de Marseille. There are numerous, and in some cases satisfactory, model dwellings erected by such railway companies as the Chemin de Fer du Nord, the Chemin de Fer d'Orléans, and the Chemin de Fer de Paris, Lyon et la Méditerranée; and by private enterprise, such as a block near the Porte d'Asnières in the N.W. of Paris; cottage dwellings in various quarters of the faubourgs and suburbs of the city; M. Cacheux's dwellings in such parts as Lilas, Billancourt, Passy-Auteuil, &c.; and model "Cités," such as may be found at Lille, Mulhouse, Marseille, &c.

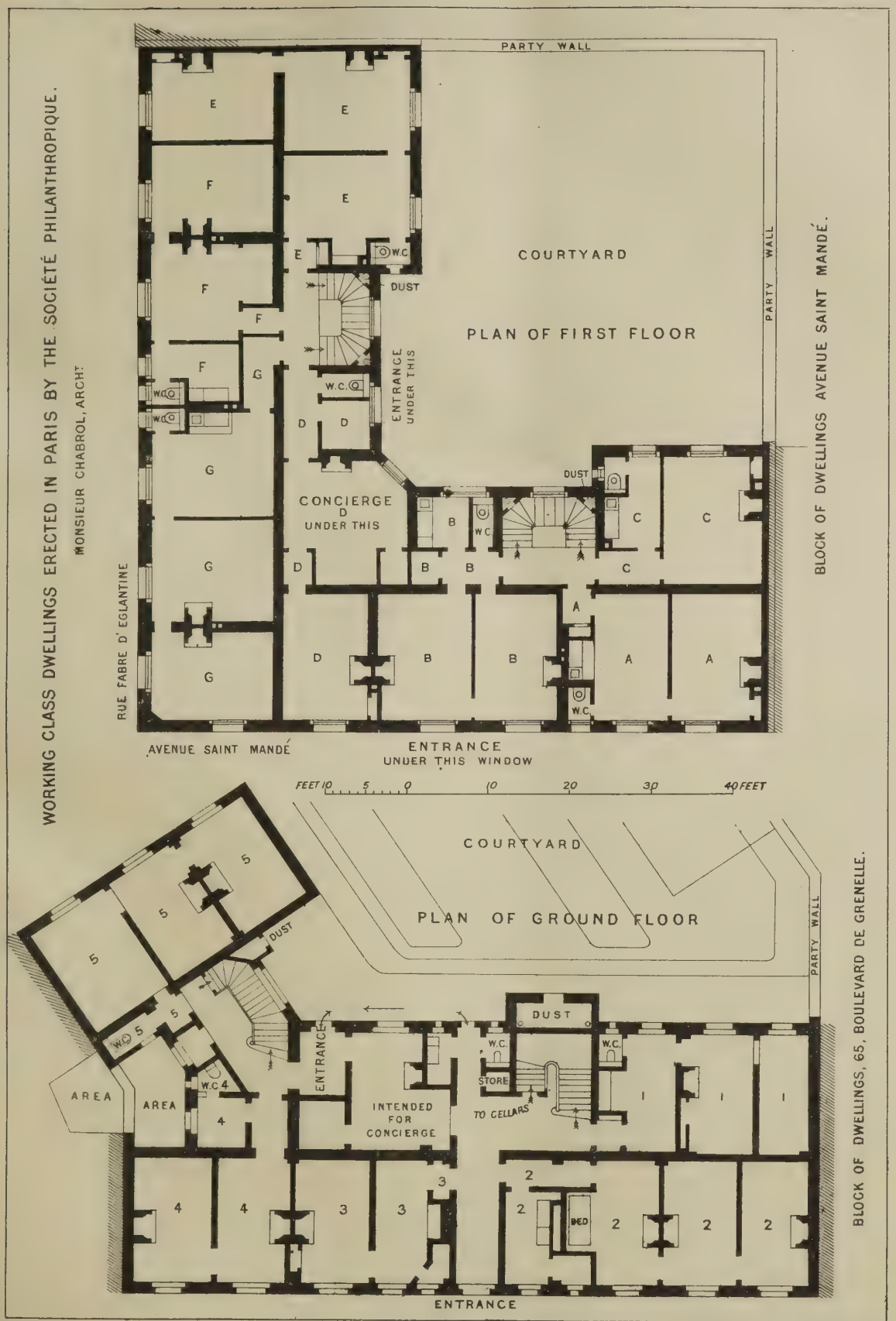
Some of those who are at present most interested in the question of the housing of the poor in France have a most satisfactory bias in favour of the erection of low tenements and cottage homes, the distribution of population so as to relieve congested centres, and the providing of facilities to enable the working-man to become owner of his dwelling.

Before more particularly describing certain examples of these block and cottage dwellings, I would draw attention to some most important conclusions resulting from the labours of the Congrès International des Habitations à bon marché held in Paris, the 26th, 27th, and 28th June 1889. The resolutions of the Congress were twenty-three in number, but I have selected those which appear to bear especially on the question of construction:—

"It is desirable to submit to the public autho-
"rity the plans of workmen's dwellings, before
"execution, as regards the health of the
"tenement."

"Local regulations should be made to prevent
"the construction of unhealthy tenements, having
"due regard to the local resources in materials
"of construction, and to the needs of the in-
"habitants."

* I derived great advantage during my inquiries and studies in Paris and other parts of France from a letter of introduction to the Prefect of Police, given to me by the Marquis of Dufferin, as British Ambassador; and I wish to acknowledge the kind assistance I received from personal interviews with gentlemen interested in this question, and in some instances from a study of their writings. They are:—Messieurs Georges Picot, Member of the Institut de France, Jules Siegfried, President, and A. Dubois, Secretary, of the Société Française des Habitations à bon marché; Messieurs le Professeur Brouardel, Doyen de la Faculté de Médecine, le Docteur du Mesnil, and F. Bouhon, architect, Members of the Commission des Logements Insalubres; Monsieur Émile Cacheux, Vice-President of the Société Française d'Hygiène; Monsieur Cheysson, Vice-President of the Société des Habitations Économiques d'Auteuil; Monsieur E. Rostand, President of the Caisse d'Epargne des Bouches-du-Rhône, and President of the Société Anonyme des Habitations Salubres et à bon marché de Marseille; Monsieur F. Mallet, Administrateur de la Société Havraise des Cités Ouvrières; Messieurs Georges Guyon, of Paris, and E. Lecœur, of Rouen, architects; Messieurs Charles D'Albert, Mangini, Narjoux, Paumier, and Roulliet. I have also to express my gratitude to the following Hon. Corr. Members:—Messieurs Auguste Choisy, Charles Lucas, and Émile Trélat [*Hon. Corr. MM.*]; as well as to Messrs. James Hole and John Hamer, President and Secretary of the Central Sanitary Aid Committee of the Mansion House Council.—L. W.



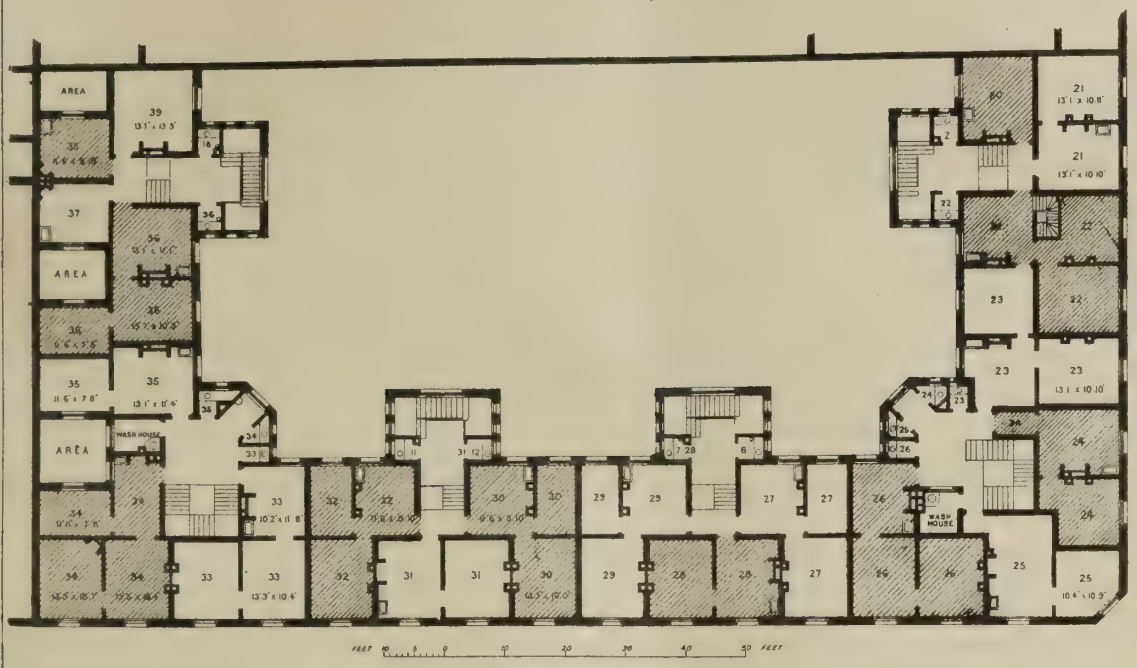
C.F.KELL LITHO. 8, FURNIVAL ST. HOLBORN, E.C.

PLATE I.—THE GODWIN BURSARY REPORT, 1892.

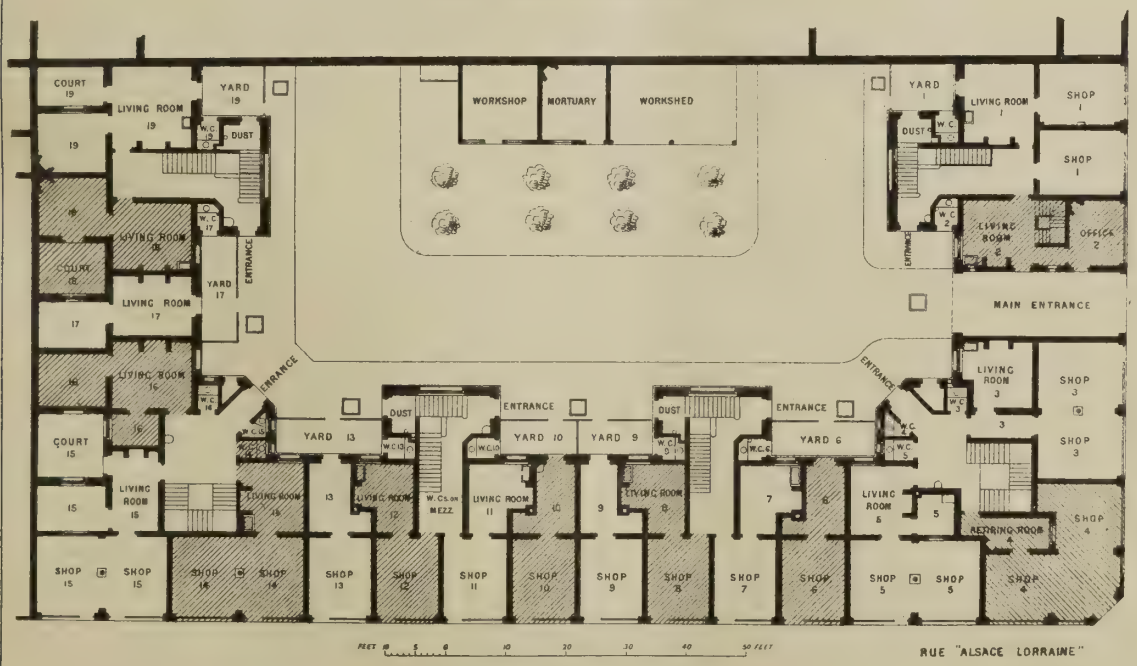
WORKING CLASS DWELLINGS AT ROUEN.

ERECTED BY THE SOCIÉTÉ ANONYME DES PETITS LOGEMENTS.

MONSIEUR LECŒUR, ARCHT.



PLAN OF FIRST FLOOR DWELLINGS.



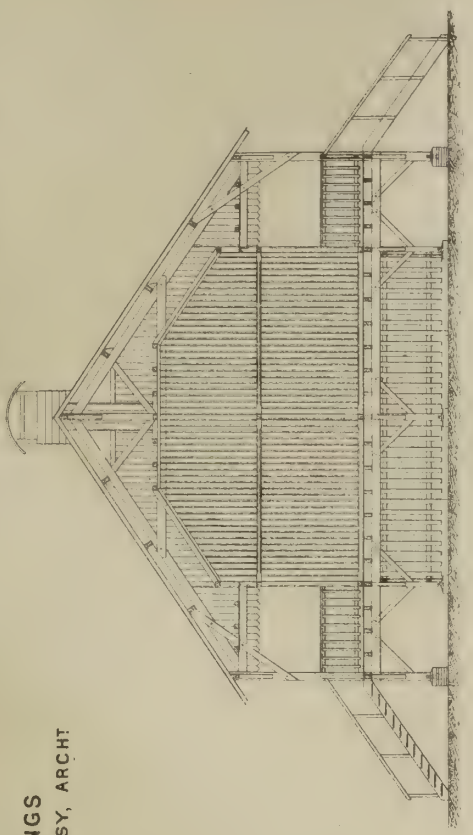
PLAN OF GROUND FLOOR DWELLINGS.

C. F. KELL, PHOTO-LITHO, 8, FURNIVAL ST. HOLBORN, E.C.

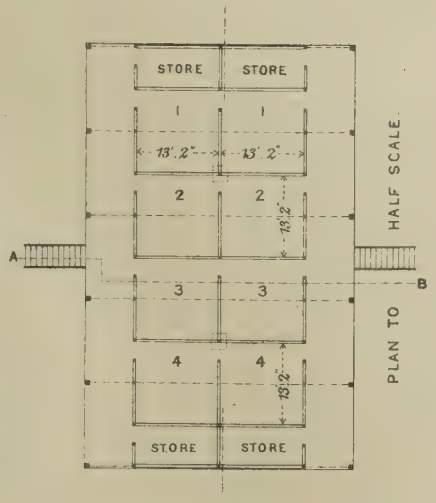
PLATE II.—THE GODWIN BURSARY REPORT, 1892.

COLONIAL WORKING CLASS DWELLINGS

EXECUTED UNDER THE DIRECTION OF MONSIEUR A. CHOISY, ARCHT.

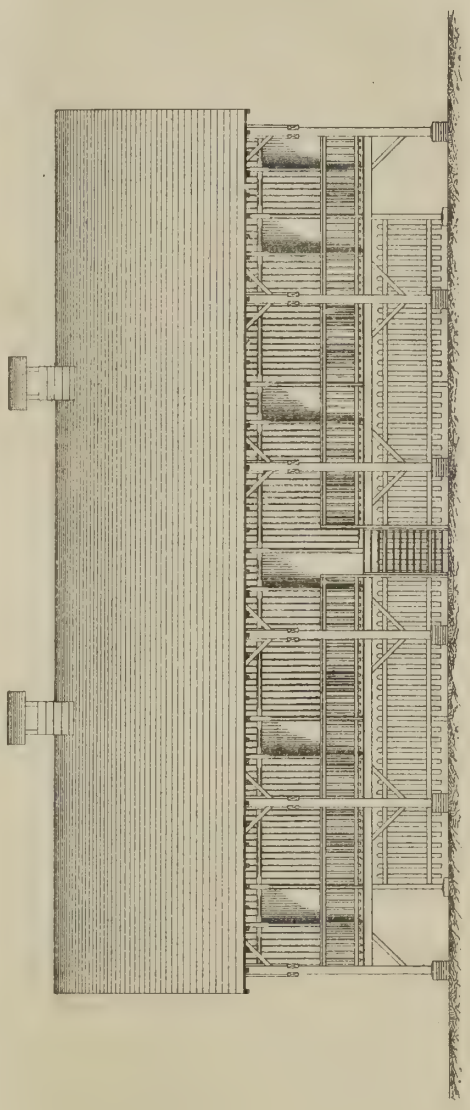


SECTION A. B.



PLAN TO HALF SCALE.

HOUSE OF FOUR DWELLINGS.



FLANK ELEVATION

PLATE III – THE GODWIN BURSARY REPORT, 1892.

"The Congress recommends the 'desiderata' "formulated in the report of M. Émile Muller "and M. le Docteur du Mesnil for the hygiene, "the health, and the good construction of model "cheap houses."

"Wherever the economic conditions admit of "it, detached dwellings with small gardens should "be preferred in the interest of the workman and "his family."

"If the cost of the land or any other con- "sideration compels the construction in the centre "of towns of houses in which several families "dwell under the same roof, all the conditions of "independence ought to be carefully considered, "so as to provide for the least contact between "such families."

"The plans should be designed so as to avoid "the possibility of the families meeting. Well- "lighted staircases and landings should be con- "sidered as a continuation of the public way. "Corridors and dark passages should be prohi- "bited. Each tenement should contain internally "a w.c., with outside window and water supply."

"For families having children of different "sexes, division into three rooms is indispensable "in order to secure the separation of the sexes."

"All overcrowding which would cause any "violation of the absolute privacy of the tenant "and his family should be prohibited."

It does not seem suitable in this report to go very particularly into the question of the methods of financing these model dwelling societies in France; but mention may be made of the employment, with the authority of the Government, of a limited portion of the Reserve Funds of Savings Banks for the construction of dwellings, and to a greater extent for loans on mortgage to building companies, as at Lyon and Marseille. It is, however, noteworthy that the employment in Paris of the public funds of the Municipal Council for model dwellings has not met with unmixed success, and tends to substantiate the conclusion that well-directed private enterprise is the best medium for obtaining good results.

The French experiments in providing freehold homes, both within and outside the towns, are most interesting and instructive; and such societies as that at Passy-Auteuil (whose houses I very carefully inspected) and the "Société des "Immeubles de France," both in Paris, and the "Société Havraise" have worked in a spirit at once philanthropic and businesslike. They act on the principle that it is not sufficient to provide that the workmen should have an agreeable and healthy home, but that it is desirable to so arrange building operations that he shall have a secure holding and shall eventually become the proprietor. Under such a system the workman will take pleasure in furnishing his house and keeping the whole in good condition, whether a tenement in the town or a cottage with garden in the outskirts of the crowded centres of population.

My examples have been arranged in two main sections:—I. *Block Dwellings*, containing many tenements superimposed; II. *Cottage Dwellings*, containing only one tenement.

Block Dwellings.

Close to one of the wealthiest districts of Paris, N.E. of the Parc Monceaux, but immediately surrounded by cottage property, is a large *block* of workmen's dwellings. The site is near the Porte d'Asnières, and has a frontage to the Rue de Tocqueville. It is a cheerful but plain building of seven storeys in height, but what impressed me particularly in its favour was the spacious internal courtyard with its excellent paving, the centre being tastefully set with a circle of evergreens, protected from the children by a moulded stone balustrade. The entrance vestibule is architecturally well treated, a rare occurrence in artisans' block dwellings. The tenements consist of two and three rooms, with closets. One of these rooms has a large alcove available for a bed or for stores, so that the room can be used as a dining and sitting room. A cellar store is provided for each tenement. Two dwellings can be made into one, the doorway between the two being arranged so that it can either be used as a cupboard, or, on removing the partition, the two tenements can be thrown together. Under the courtyard are cellars for each tenant, lighted, and ventilated with flues; and approached by two sloping ways from the area. The buildings only lately completed are constructed of substantial materials. Water is provided at each kitchen sink, and each tenement has a water-closet. There is a complete installation of gas in each dwelling, and the kitchen is supplied with a good cooking-range. The rents of the tenements vary from 400 fr. to 500 fr. a year, and in these buildings the tenants are, therefore, not of a very poor class, but are chiefly well-to-do employés.

The Boulevard de Grenelle block [Plate I.], in the Grenelle district of S.W. Paris, is one of a series of model dwellings erected recently by the Société Philanthropique. This lofty pile of tenements comprises seven storeys above the ground floor. During two surveys, the external and internal appearance of the buildings impressed me as being cheerful and the construction substantial. The plan is generally good, but the back-to-back arrangement of the tenements is decidedly objectionable, though leading to economy of construction. Each tenement is distinct, with its own kitchen-range, cupboard, and w.c. There is a good gas and water service. Large windows with balconies, the sill of which is within 10 inches of the floor, light each room. The details appear to have been well arranged by the architect to the Company, M. Chabrol. This block cost 279,000 fr., and yields a gross revenue of 14,285 fr., allowing for empties and arrears. The average cost per tenement is 6,065 fr. The expenses amount to 3,652 fr. The gross return is therefore 5·12 per cent. on the outlay, and the net profit 3·81 per cent. The cost of water is here high, viz., 23·20 fr. per tenement. The tenants appear to be quite satisfied with, if not proud of, their quarters. The authorities tell me that perfect order has been maintained in the houses since their erection.

The block of the Avenue Saint-Mandé and Rue

Fabre d'Églantine [Plate I.], the work of the same Society, was opened 16th February 1891. Standing seven storeys above the ground floor, it contains fifty-five family tenements, some dwellings being arranged for a family of seven or eight persons. The total average cost of a tenement is 5,454 fr., and the rents vary from 351 fr. to 143 fr. I found that one characteristic, which perhaps renders these tenements particularly comfortable, is the excellence of their cooking appliances—the range being of unusual elaboration and completeness. The dust-shoots are spacious and well placed, but have no disconnecting traps on each floor. The dust-collector is not large enough, requiring to be emptied twice a day. Each tenant has a numbered lock-up cellar. In the basement, the gas, water, and sewage mains and branches are conveniently gathered together in a cellar, the metres, stop-cocks, &c., being under the direct inspection of the caretaker. From this cellar a gangway leads towards the main road sewer, at the side of which passage runs the main house sewer pipe, the gas and water being overhead. These exposed pipes run through the wall at the far end of the gangway, adjoining the main road sewer. The whole is sewer-gas proof, and forms an excellent hygienic arrangement, a remarkable contrast to many of the other tenements in Paris. Each w.c. on the pedestal system has, in this case, good water service and a cistern of 10 litres or 4½ gallons. The concierge on the ground floor can overlook both staircases, approach to which can only be obtained by the one entrance from the street.

The net profit during 1890 upon this, which is the newest block built by the Société Philanthropique, is 4·18 per cent.

The Société des Immeubles Industriels has erected buildings off the Faubourg Saint-Antoine, Paris, both sides of the Rue de l'Industrie being occupied by these tenements. The ground floor, basement, and mezzanine are occupied as workshops, and most of the rooms above by small householders. I found much good material here for study, as the buildings, which were erected between 1870 and 1873, have withstood the test of time well. Most of the tenements are self-contained, with living-room, kitchen, bedrooms, storeroom, and w.c. Steam power, provided on the premises, is let to the tenants on reasonable terms. A group of bath-rooms provided for their use is situated behind the Faubourg Saint-Antoine block, and steam for heating same is laid on from the boilers. The average rent per tenement amounts to 450 fr. a year; so that these buildings, whilst supplying what is wanted by better-class artisans, do not provide for the very poor. I made two surveys of these blocks, but for the plans, which I have arranged in English form and drawn out with English dimensions, I am indebted to a publication entitled *Les Habitations Ouvrières en tous Pays*, by M. Émile Muller and M. Émile Cacheux.

A block of model dwellings is situated in North Paris, near the Avenue Saint-Ouen, Butte Montmartre. I found it stood distinctly in the midst of a working-class population, and has the advantage of having an open space attached to it. It has been built by L'Association Protestante de Bienfaisance, under the direction of M. Félix Paumier, architect. The association, which was founded in 1825 for general charitable purposes, in the year 1890 bought a plot of ground of 400 mètres between the Rue Vauvenargues and the Rue Marcadet in the 18th Arrondissement. That portion of the site which has a frontage to the Rue Vauvenargues has been used for the construction of a cellared house with ground floor and five storeys over. These contain in all twenty-eight good tenements. The remainder of the plot on the Rue Marcadet is at present used as a playground for the children, and in a corner of this is a small shed for drying clothes. All the walls for their full height are of stone, and those facing the street and the principal court are rough-cast. The party-walls and the external walls of the small court are of bricks. The copings, cornice, and some other dressings are in stone. The floor joists are of iron, and the staircase has iron carriages and oak treads. The lower portion of the mansard roof is covered with slate, and the upper portion with zinc. All the rooms, except the kitchens and w.c.'s, are floored in oak. The ground floor contains a hall available as a common room for the tenants, also the porter's lodge, and three tenements, one of which has two rooms with a kitchen and a store closet, and the two others have one large room with a kitchen. Each of the upper floors comprises five tenements, two with two rooms, a kitchen and a storeroom, two others with two rooms, and the last with one large room and a storeroom; a fireplace range serves for cooking in those tenements unprovided with a separate kitchen. There are two w.c.'s on each floor, one for men and the other for women. The water-tap, common to the tenements on each floor, is on the landing near the w.c.'s. The land and buildings together cost 140,045 fr. The total area of the tenements on the ground floor and the five upper floors is about 740 mètres, and it is let at an average price of 7 fr. per mètre, or 6·34 pence per sq. foot, giving a gross revenue of 5,180 fr., or 3·7 per cent. on the capital. It must be remarked, however, that an area at least equal to that of a tenement is occupied on the ground floor by the common room, and also that 200 mètres of land on the Rue Marcadet are unbuilt upon. On the other hand, no allowance has been made for repairs and management.

A Scheme for Block Dwellings in Paris was designed by the late Félix Narjoux, and though it has not been carried out, the plan is worthy of attention. The block of five storeys and ground floor is arranged with cellars and attics. Situated at one side of a street, it has large courts of about 60 sq. mètres, with smaller courts of 20 and 16 sq. mètres. Each section of the building has its own staircase. The six tenements on each floor consist of vestibule, w.c., ante, cupboard, living room, with kitchen and bedrooms. To enter into the details of the author's estimates seems undesirable, as the building has not been executed. The plan is ingeniously manipulated as a series of distinct homes on the flat principle; but the some-

what small courts in the rear are a drawback, though not of a serious nature. I would thank M. André Narjoux, architect, of Paris, for his kind courtesy when I called upon him concerning the late M. Narjoux's scheme.

Passing to the provinces, the Société Anonyme Immobilière des Petits Logements has erected in the Martainville quarter of Rouen, a fine block of dwellings known as the "Alsace-Lorraine" group. This large block of ground floor and four storeys is designed on the English system [Plate II.]. The general arrangements are very good, and the details and construction have been well carried out. Monsieur Lecœur, the architect, very kindly conducted me through all parts of the building, and I am indebted to him for the reports of the society, which have assisted me in preparing the following description. The buildings were completed on 31st December 1887. The entrance to the block is from the Rue Victor Hugo, on the one side being the attendant's office, and on the other a notice indicating the various tenements and the names of the occupiers. This vestibule gives admission to a large cheerful court, part of which is well concreted and drained, and part is gravelled and planted with trees. The building is in brick with stone dressings. The ground-floor walls are $17\frac{1}{2}$ in. thick, upper floors $13\frac{3}{4}$ in., the party-walls between various tenements are $8\frac{3}{4}$ in., and between the different rooms of each tenement $4\frac{1}{4}$ in. The block is divided into six main groups of self-contained tenements, and is provided with six staircases. The carriages and risers of the staircases are of cast-iron, and the treads and landings are in paving of cement concrete. The walls as well as the ceilings are plastered as usual. On the staircases and round the w.c.'s and wash-houses there is a dado 4 ft. 5 in. high. The cellars are paved with cement concrete. The entire drainage runs as direct as possible into the city sewer, and the pipes are well flushed with water. In case of need, the six blocks can all be placed in communication by a central connecting passage in the roof, by means of doors of which the superintendent and the porter have the keys.

The ground floor to the street is divided into fifteen shops, a large one at the corner, four large shops of two bays, and ten small shops.

The office, connected with the house of the superintendent, is also on the ground floor. The shops have all one or two small rooms connected with them on the ground floor, and lighted from the court. They have cellars and w.c.'s; several of them have also small private courts enclosed by railings. The distribution of the tenements above the ground floor is practically identical for the four storeys. Generally speaking, the arrangement comprises three tenements on each landing—two tenements of three rooms and one tenement of two rooms—all having at least one window looking on to the street, and most of them having frontage both to the street and the court. This through ventilation from street to street is a special feature of the block, and is much to be commended. In the blocks which I saw at Paris this arrangement for through ventilation has not been sufficiently attended to. At the west end of this block there are some tenements abutting upon the dead wall of the adjoining property. These tenements front on to the large court, and have also windows looking into small areas. In four of the groups of tenements the w.c.'s, wash-houses, the water-tap, and drying-room, &c., are on a mezzanine; in the two other or corner groups these offices are placed on the same landings as the tenements.

Each tenement has the exclusive use of w.c. and water service. All have also the use at least once a week of a small, well-fitted wash-house. There are cellars beneath the building of various dimensions, and let according to the needs of the tenants. Attic storeys are provided in the roof, which are more or less in use. On the first and second floors the kitchens are tiled, and the rooms covered with parquetry; on the third and fourth floors all the rooms are tiled. The mantelpieces are of cast-iron. The windows are double hung sash-frames, as usual in England. The kitchens are furnished with trapped sinks, dresser, and larder, and each tenement has one or two cupboards. The window-sills are large, and arranged so as to hold flowers. There is a gangway on the roof, giving access for workmen from one end of the building to the other. In the large court there is a small block of buildings containing a cider-press for the use of the tenants, and a small workshop for the use of the officials. There is also a room which can be used as a mortuary or as an infirmary in case of contagious illness.

The courts and passages are lighted by gas at the expense of the Society. Gas service has been laid on to all the tenements, but only two-thirds of the tenants make use of it. The total cost of the buildings, land, &c., was 463,377 fr. The rentals of the tenements vary from 88 fr. to 450 fr., according to accommodation and position. They consist of one room, of two rooms, of three and of four rooms. There are ninety-nine tenements altogether, and the return on capital is from 3 to $3\frac{1}{4}$ per cent.

The Société des Logements salubres et à bon marché de Marseille has erected a group. I was fortunate in meeting in Paris M. Rostund, the president of this Society, and I am indebted to him for particulars of the buildings at Marseille, and to M. Charles D'Albert, whose plans I have redrawn to English scale. These block dwellings are for poor people of the lowest class, and are an interesting experiment in so far as they supplant the worst hovels. They are of two storeys, built on each side of a court five mètres wide opening into the Rue Guérin, each tenement being self-contained. The court is paved with cobbles, and has a fall of about 1 in 33. Both sides of the court slope down to a middle gutter of glazed channel-tiles. This gutter is flushed by a constant stream of water from a water-pillar at the top of the court. The slops of the houses and the rainwater run into this gutter, and are discharged into the Rue Guérin. However well executed, this Continental plan of open gutter does not commend itself to the English mind. The larger tenements

consist of a well-ventilated kitchen to the front, of a room behind the kitchen opening on to the back area on the ground floor and on to the balcony of the first floor. A large room with windows on both sides is divided by a partition 7 feet 3 inches high, with a space above this of 2 feet 7½ inches. The w.c.'s are placed behind the house, and approached through the open yard on the ground floor and through the open balcony on the first floor. Other tenements for single men on the ground floor consist only of a front kitchen and a room opening on to the area at the back. The soil-pipes trap into an external pipe sewer leading to the cesspool, which pipe drains the back yards. A simple but effective flushing-trough is placed above the upper end of this pipe, which is balanced in such a way as to turn over when the tap above has supplied 100 litres of water, which is discharged into a cone at the end of the pipe, flushing the same effectually.

All the rooms are whitewashed, wall-papers not being allowed. There are no fireplaces to the bedrooms, but in the kitchen and the larger room of each tenement there is a flue for the pipe of a stove to be provided by the tenant.

There is a washhouse near the entrance to the block, which can be used by four women at a time.

The total cost of the works and land is 61,647fr. 20c. After deducting the usual charges for water, taxes, maintenance, insurance, &c., there is a profit left of 3½ per cent.

The same Society has erected in the Rue Saint-Lambert, Marseille, on ground which cost the Society 5 fr. per square metre, a block of three storeys above the ground floor. Each tenement is self-contained, and has a separate entrance-door from landing, and consists of two or three rooms and a kitchen, with w.c. The walls are of stone, and the rooms have a dado composed of a cheap description of durable cement, and all corners are rounded so as to leave no place for dirt or vermin. The water supply goes straight up to the roof, and the water is discharged into a zinc tank placed over the staircase, and containing as many compartments as there are tenements. From each of these divisions starts a distribution-pipe, with a branch to a cistern containing 36¼ gallons (80 litres) in the w.c. of each tenement. The overflow from this cistern, passing above the whole length of the corridor, runs into another larger cistern placed over the kitchen, and from which branches the supply for the tap at the sink. The overflow from each kitchen cistern falls directly into that of the floor below down to the first floor, where these overflows all unite to supply the large tanks placed in the court-yards over the washhouses. It is only after having passed through these that the superfluous water runs into the conduit-pipe, which empties itself into the cesspools of the closets. The 36¼ gallon cistern on the closet of each tenement supplies a flush apparatus containing 6¼ gallons. The soil-pipe is duly trapped at bottom.

The total cost of buildings, land, &c., was 137,416 francs.

The rentals vary from 301 fr. 15c. to 139fr. 24c. The tenements are inhabited mostly by workmen in constant employment, with wages of 5fr. 50c. to 6 fr. a day.

Several blocks of this class have been erected in many parts of Lyon, and others are now in course of erection, being the work of an energetic and financially successful company started in 1886—namely, the Société Anonyme des Logements Économiques de Lyon.

A small work—*Les Petits Logements dans la Ville de Lyon*—has, together with other sources of information, enabled me to report the following leading items of interest, as I was unable to visit this town. The partners of this Society bind themselves not to receive more than 4 per cent. per annum upon their capital. The tenements are built in stone from the foundations up to a certain height above the ground, and the remainder is in slag concrete, which has been largely used at Lyon for the last twenty years. Cement is used both inside and outside the building, but the cornices are of stone. There is a cellar under the whole of each block. This cellar is divided by partitions into as many compartments as there are tenements in the house. Each of these compartments is closed by a door with a special key for the tenant. A stone staircase, having a dado of cement, and lighted by a large window at each landing, leads to all the storeys. All the floors are fire-proof, and all rooms except the kitchens, which are tiled, are floored with oak, which, though cheap in France, would be too expensive in this country.

The ground floors of some blocks are generally occupied as shops, which are arranged so as to be converted into ordinary tenements if required. Each storey consists of two tenements of three rooms each, self-contained, with a single door to each tenement on the landing, the surface of the tenement varying from 50 to 42 square mètres. The landing door of both tenements opens on to a small passage. The w.c., entered from the passage, is lighted and ventilated by an aperture on to the staircase. The position of the w.c.'s is certainly unsatisfactory, though it is stated that no inconvenience is experienced. In each kitchen there is a stove with boiler and oven, a sink, dresser, cupboard, and a coal store in the recess of the window.

The average cost per tenement is 2,968 fr. The cost in connection with one of several sites of five small blocks, containing together sixty tenements, comes to 170,100 fr., and a sum of 12,000 fr. represents the total rental collected each year.

Dividing 12,000 fr. by the number of square mètres of renting accommodation, we get an average rent of 5 fr. per square mètre, or 4·53 pence per square foot. The rents are 5·75 fr. per square mètre, or 5·22 pence per square foot on ground floor; and 5·30 to 4·0 fr. per square mètre, or 4·80 to 3·62 pence per square foot, on upper floors, which gives for three-room tenements a rent of from 174 to 258 fr., and for two-room tenements a rent of from 96 to 132 fr., or an average of 72 fr. per room, as against 100 fr. for a slum room of the most wretched description in Lyon.

Cottage Dwellings.

In the south-west quarter of Paris and within the fortifications is situated the Villa Mulhouse, a group of dwellings founded by the Société Anonyme des Habitations ouvrières de Passy-Auteuil. These dwellings were visited and generally approved, so far as economics and the object of its promoters were concerned, by the President of the Republic in 1891. In examining the quality as to lasting stability of these dwellings, if we are a little disappointed we must remember that they are an effort to provide freehold houses for the poor within the fortifications of Paris on very low terms. The Society was established in 1882 for the purpose of constructing small model houses, of which the tenant may become proprietor in twenty years by an annual payment in addition to his ordinary rent. It was awarded a medal of honour at the Paris Exhibition of 1889, and has by its statutes limited the rate of interest on the capital to 4 per cent. It commenced by purchasing land, and building fifty-six houses, the individual value of which, exclusive of land, varied from 3,400 fr. to 5,500 fr., to which must be added for cost of land about 1,500 fr.

I made two surveys of these houses, which are self-contained, comfortably fitted, provided with water and gas, good drainage, a small garden, a cellar, and generally a yard and basement. No shop is allowed on the property except a co-operative store, nor is any public-house permitted. There is cheap and convenient access to all parts of Paris by steamboat, trams, omnibus, and train. On taking possession of a house with a view to becoming proprietor, a first instalment of at least 500 fr. has to be paid. The rent is calculated on the basis of 4 per cent. of the value of the house, to which is added 1 per cent. for the cost of management, taxes, &c., and $3\frac{1}{2}$ per cent. for the completion of the purchase in twenty years. Thus, for houses offered at a price of 5,000 fr., an annual payment of 415 fr. is required. This is the rent for a house of one storey, containing four rooms, cellar, yard, garden, and w.c., and secures the ownership of it in twenty years.

A group of four houses, in the Commune des Lilas, situated outside the fortifications on the N.E. side of the city, is an interesting attempt to provide this class of cottage home. In this neighbourhood there are many small houses of various types with gardens. I found that many were not in good repair, though well arranged. Except when built in pairs, and surrounded, as in this case, by plenty of open space, the system of back-to-back tenements cannot be upheld. These houses are costly in consequence of extra foundations and the large area of land for gardens. The cost of one house was 6,600 fr., and the land 1,400 fr., making a total of 8,000 fr. The rent of a house to the north is 350 fr., and to the south 400 fr. The architect of these houses, which were built some years ago, was Monsieur E. Brûlé.

Among the various tenements I visited in the Commune des Lilas, near Paris, are a series of *small dwellings*, designed by M. Cacheux, with extensive gardens in the rear. Each tenement contains living room, kitchen, two good bedrooms, store-room, and w.c. The price of the house is 4,800 fr., and the land 2,000 fr., making a total of 6,800 fr. The house is sold for a premium of 600 fr., with an annual rent of 600 fr. for fifteen years. It should be noted that the cost of land in this case is very high, owing to the large area of garden ground.

The Société Coopérative Immobilière des Ouvriers de Paris is worthy of notice. I inspected the tenements known as the Villa Rigoles in the Belleville quarter of the city, entering the property by the concierge's cottage through the gates in the Rue de Rigoles. On each side of the central way are little blocks of two and three-storeyed tenements, with separate enclosed gardens, which, though on a narrow and confined site, are well placed, so as to give open space about the houses. The walls of the ground floor of these dwellings are faced in stucco, the upper portion being in brick, with cement dressings. The dwellings have been built for some years, and the exterior is somewhat out of repair, but the interest lies in their planning. A large sewer runs down the centre of the street, into which the w.c. and sink wastes directly run. There is a good water supply. There are several types of these tenements, the most interesting of which are the following:—

Type A has living room, kitchen, parlour, and w.c. on ground floor, and three bedrooms on the first floor.

Type B has living room, kitchen, and w.c. on ground floor, and two bedrooms and store on first floor.

Type C has living room, small kitchen, parlour, and w.c. on ground floor, and two bedrooms and store on first floor.

Type D has living room, kitchen, and large room and w.c. on ground floor only, with cellars below.

Type E, which is on first floor over D, has living room, small kitchen, w.c., and large room with recess.

Certain types of street dwellings erected in the Boulevard Kellermann, and other parts of Paris, are from the designs of M. Cacheux. They comprise an ingenious arrangement of two-storeyed houses much on the English plan, with two ground-floor rooms, a scullery or kitchen, and w.c., with two good bedrooms and store on the first floor.

On the Boulevard Murat, at Auteuil, are some small workmen's dwellings, with gardens attached. The arrangement of the gardens is good, giving light and air to the houses. Some are arranged so that a portion can be sub-let. Others are self-contained one-storeyed tenements. The average cost per house is 6,000 fr. There have been many model cottages built in this suburb, but I do not think it worth while to describe the plans of many I visited. These may be considered as specimens.

The Société Anonyme des Habitations Économiques de Saint-Denis was carrying out, in 1892, a scheme of dwellings of various types upon pro-

perty in that neighbourhood. I visited the site, and met there the architect, M. Guyon, who was engaged in setting out the levels of the work. As the buildings were not then erected, I am unable to report on existing details, but through the courtesy of M. Guyon I have been able to convert his French plans into English form as a general explanation of the undertaking. The majority of the tenements consists of two storeys, and never more than four.

Like most of the great industrial societies, the Compagnie du Chemin de Fer du Nord has spent considerable sums in the purchase of lands and the construction of houses for its employés and workmen of different classes.

Amongst many such tenement houses, new groups have lately been constructed near the stations of Lens, Bourget, and Condekerque. Through particulars furnished me by the Société des Habitations à bon marché, I am able to give to English scale this interesting example at Bourget. The general management of these houses is provided for by the Company. The allotments constituting the blocks are from 700 to 800 square mètres for the principal servants, and 250 to 300 square mètres for each family in the smaller types. The illustration shows a group of four tenements, which are built on arched cellars. Each tenement consists of a ground floor of 9 feet 10 inches high, of a storey of 9 feet 1 inch high, and of an attic in the roof. There is to each house an outbuilding of one storey without cellars, including a wash-house or store-room attached to the kitchen of the house, and a w.c. entered from the wash-house. The entrance door, sheltered by a small pent-house, leads into a small lobby, opposite which is the staircase to the first floor. At the left side of the entrance is the living room, 9 feet 10 inches by 13 feet 1 inch, with range, &c., adjoining the wash-house and the steps to the cellar. On the right is a bedroom 9 feet 10 inches by 13 feet 1 inch. The cost of one house in such block is 4,750 fr., or 19,000 fr. for the block of four.

The general expenses of purchase and laying out land, fences, &c., are 1,650 fr. per dwelling, or 6,600 fr. for the four. The entire cost is thus 25,600 fr. The rent is 12 fr. per month, or 576 fr. for the four houses in the block.

The Compagnie du Chemin de Fer d'Orléans has provided dwellings for its servants. Each house contains two tenements. Each tenement has four rooms, with fire-places, w.c., store-room, and garret. These houses are situated at a considerable height above the sea, and are strong and well built. The total cost of each house is 13,600 fr., or 6,800 fr. per tenement. This somewhat high price for workmen's houses is due to the solidity of the work. Similar well-built houses might be constructed in the suburb of a large town at much less cost, say 10,300 fr. for the block. The rent paid by the servants is equal to one-tenth of their salary. The buildings have substantial foundations in hydraulic lime, and the walls are coursed in stone, the dressings of windows and doors being of fine wrot-stone. The chimney shafts are in brick, and most of the carpentry is of native oak and the joinery of Northern red deal.

The Société Havraise des Cités Ouvrières has erected two small workmen's "Cités" at Le Havre, which I spent some time in carefully examining. They are very interesting, more especially as the experience gained by one of them extends over twenty years. The oldest group, which consists of seventy-seven houses, is not particularly well arranged. The forty houses, however, of late erection, though they are more expensive than the older ones, are well arranged. The object of this Society, which was founded in 1871, with a capital of 203,000 fr., divided into 400 shares of 500 fr. each, is to assist workmen in becoming proprietors.

The rent, redemption included, is calculated on the basis of 10 per cent. of the cost price of each house. The freehold is thus secured in about fourteen years. The land tax and insurance are chargeable to the tenant. A current account is opened with each tenant or lessee, who is debited with the value of the freehold from the day of entering into possession, and credited with his monthly payments. The rents are payable monthly. The lessee pays in advance, as guarantee, a deposit which varies from 300 fr. to 530 fr., according to the size of the house. The deposit permits the Society not to be too strict in case of delay in the payments. The tenant can, in addition to his rent, make further payments in sums of not less than 50 fr. The different sums are carried to the credit of his account. If, from any cause, a tenant desires to quit, his deposit on current account, together with about one-third of his monthly payment, are refunded to him. It is prohibited to sell drink, or to disfigure the whole group by building in the gardens.

The cost of building and the purchase of land amount to about 550,000 fr. The town of Havre paid to the Society a sum of 25,000 fr. at the time of the building of the first group, partly as a subsidy and partly in consideration for work done by the town. The Society gave the land necessary for the streets, and the town bore the expense of the ballasting, footways, and gas and water installations. Of the 117 houses, on 31st December 1889, seventy were entirely paid for by the occupiers. With some exceptions every house has a garden which varies from 50 to 150 square mètres in area. There is also a small court behind, with shed for wash-house, and a w.c. at side. Some have cellars. The purchase money varies from 3,700 fr. to 6,000 fr., according to the size of the gardens and the cellars, &c. When a tenant has paid a third of the freehold, he can complete the purchase by deed, the costs of which he must defray. The Society holds a mortgage till complete payment. A strong brick wall and not a mere temporary fence divides the gardens.

This Society has undoubtedly succeeded in rendering appreciable services to the working classes, without compromising the capital which is lent to it, as, since its foundation in 1871, it has regularly

paid to the shareholders 4 per cent. interest, the highest rate allowed by its constitution.

At Lille, a workmen's cité, in the Rue de Condé, near the Porte d'Arras, contains interesting types of four-roomed houses. On the ground floor are a living room, kitchen, and spacious yard, shed, and w.c., and on the first floor two bedrooms and a cupboard. The walls are of brick and the roof is tiled. The streets, 10 mètres wide, are paved and lighted with gas. The net cost of a house, including land, which was purchased at a price of 8 fr. 50 c. per mètre, was 2,700 fr. The architect was Monsieur Marteau. I have been enabled to arrange my plans to an English scale from plans by M. Cacheux.

The Cité Ouvrière, in the Boulevard Mirabeau, Marseille, is of interest. Type A is a good arrangement, in which there are both first-floor and ground-floor tenements. The cost of Type A, ground included, is 2,252 fr. The gross income is 300 fr., the charges 64 fr., and net income 236 fr.

Type B, with only ground-floor accommodation, shows the combination of two very small room tenements of great simplicity. The cost of Type B is 1,600 fr., the gross revenue 144 fr., and the net income 105 fr. The walls are of rough stone coated with cement, and the dressings round the windows are in brick. The w.c.'s and dustbins placed together are somewhat insufficient. A well gives the water supply. The economy of such an arrangement is obvious, but convenience is curtailed and health endangered.

Some model cottages at Oullins, near Lyon, have been constructed by a Society called "Le "Cottage" with the object of providing small houses for sale to workmen. The rules of the Society provide that the shareholders shall not receive any dividend exceeding 5 per cent. The land chosen suits the requirements admirably. It only cost 2 fr. the mètre, and its purchase is therefore not an excessive item in the cost. The site is within ten minutes' walk of the works of the Paris, Lyon, and Mediterranean Railway Company. Sixty of these houses are built, and it is intended to build 100 more. The Society builds in each group one or several types of houses. The principle of procedure is to construct "to "order," a contract being entered into before building. When it builds a house, therefore, it knows in advance who will be the occupier and intending purchaser. This method has certain advantages, the Society having the certainty that its buildings will be occupied as soon as constructed, and that, consequently, it will not suffer any loss of interest. The purchaser has the power of making such modifications in the standard type of plan as may be required by his personal tastes and wishes. At Oullins the Society "Le Cottage" has adopted two standard types, which I have illustrated. One type has only one floor. It costs 3,200 fr., and is composed of three rooms, cellar, attic, and garden of about 100 mètres. The monthly payment is 24 fr., redemption money included, and the property is acquired at the end of fifteen years. The second type, also of one floor, amounts to 3,500 fr. Instead of three rooms it contains four, which explains the extra cost of 300 fr. There is also a cellar, an attic, and a garden of the same dimensions as in the last case. The monthly payment is here 26 fr., and the period completing the purchase is sixteen years five months.

Such are the two standard types offered to the workmen of Oullins, and which have served as bases to the contracts between them and the Society. These types are often slightly modified in execution, causing some alterations of cost, sometimes less, but generally more. Thus special grates and more cupboards are often required. It is sometimes found that tenants wish to have the French oak floor throughout, to save carpets. Some have asked for thicker walls, a cellar larger than the standard one, or an attic arranged so as to serve as a bedroom. Two workmen with large families have required the addition of a first floor. Many with a taste for gardening have asked for a garden of larger extent. These modifications, besides giving satisfaction to personal needs, have, in addition, the advantage of breaking the uniformity, so monotonous, of workmen's dwellings. There are some purchasers who have required such important modifications that the cost of their houses has come to 1,150 fr. more than the ordinary price. But the average additions vary from 100 fr. to 200 fr. The floor of the kitchen is tiled in concrete, the rest of the floors over the cellar being of wood. By the above explanations it will be seen that the houses constructed at Oullins are completed at a price sufficiently low to suit the means of workmen.

The examples of block and cottage dwellings thus described must only be considered as specimens of what is being done by our neighbours to combat the difficulty of housing weekly wage-earners in suitable homes. There are necessarily many excellent examples to which I have not even referred. It would have been useless and undesirable to describe the various details and materials in each case, as they are generally of a uniform character. I have, however, placed in an Appendix extracts from the Report on the Construction and Sanitation of Model Dwellings, presented by M. Emile Muller and M. le Docteur du Mesnil at the Universal International Exhibition held at Paris in 1889. My report of some of the work which the French nation has been doing to improve the central and district town dwellings of the poor and working classes of France will show that, whilst something has been done in the past by private and philanthropic efforts as well as by commercial enterprise, the problem has not been thoroughly grappled with till of late years—and especially since the Paris Exhibition of 1889.—Locke Worthington.

*** Mr. Locke Worthington's Report (MS.), with the drawings accompanying it, is at the Institute, and it will be preserved in the Library. The three plates, inserted between pp. 452–453 *ante*, are selected from a set of twenty-seven drawings made by the author, from sources which he has acknowledged in a footnote on p. 452 *ante*; and who, in addition, received from M. Auguste Choisy [*Hon. Corr. M.*], of Paris, several drawings of French colonial dwellings, one of which is given in Plate III.

OBITUARY.

Henry Clutton, *Fellow.*
1819–1893.

When, in 1854, Mr. Henry Clutton, of Charles Street, St. James's, was elected a Fellow of the Institute, he sent, with a letter enclosing his "Declaration," a copy of the book he had published the previous year, entitled *Remarks, with Illustrations, on the Domestic Architecture of France, from the Accession of Charles VI. to the Demise of Louis XII.*—an admirable work, containing sixteen folio plates, lithographed by F. Bedford from Clutton's own sketches, and many excellent woodcuts in the text. The opening sentences, so characteristic of the period when "true principles" was the all-prevailing cry, and when the early volumes of Viollet-Le-Duc's *Dictionnaire Raisonné* were to be found on most English architects' tables, reflect the spirit in which Clutton and Burges and Street began the study of a mediæval building, and explain their purpose in so doing. "It is more particularly the object of the "present work," said Clutton, "to draw the at-"tention of the architectural profession to a phase "of mediæval art wholly distinct from anything "to be found in this country, and to point out "from the published examples certain principles "in its construction and details, which may, per-"haps, be advantageously adopted in modern "practice." He added that he had availed himself of the services of his friend, William Burges, who had worked out his sketches, and to whom he rendered thanks.

Clutton was a pupil of Edward Blore, as Burges was, and one of his contemporaries in Blore's office was Mr. Penrose, who left in 1838. Messrs. Clutton and Burges justly made a reputation in 1855 by their design for a Cathedral at Lille, which was placed first in the great International Competition of that year, Street being second, and Lassus (Paris) third. Two years afterwards the same partners restored the Chapter House of Salisbury Cathedral; but they appear to have subsequently worked apart, Burges alone having sent in the design for the Memorial Church at Constantinople, which was adjudged the best, but was not executed.

Among Henry Clutton's executed works are churches at Woburn and Tavistock in Bedfordshire, and the Chapel of the Immaculate Conception in Farm Street, W.; additions to Cliefden House and to Battle Abbey; schools and houses in various parts of the country. He was also, of late years, Consulting Architect for the London estate of the Duke of Bedford, the elevations of the new buildings in Covent Garden and surrounding streets having been designed by him, though the buildings were erected under the superintendence of various architects. Clutton was selected by the late Cardinal Manning as architect of the proposed Roman Catholic Cathedral of Westminster, a description of which, with an illustration, appeared in *The Builder* of the 9th October 1875.

Henry Clutton, who retired from practice owing to failure of eyesight, was transferred to the Class of "Retired Fellows" in 1889. He died, after a short illness, on the 27th ult., at 76 Onslow Gardens, South Kensington, at the age of 74. Not the least interesting part of his professional career is to be seen in the care with which he took up a subject requiring archæological research. His Papers on *Chapter Houses, their Form and Uses*, read in 1854 before the Wilts Archæological Institute at Salisbury, and on the *Sainte-Chapelle at Paris*, read before the Ecclesiological Society in 1856, were both published in *The Ecclesiologist*, the volumes of which may be consulted in the Library.

*** Any members who may have preserved interesting reminiscences of the late Mr. Henry Clutton are invited to communicate them for publication in this journal.

BOOKS AND PAMPHLETS RECEIVED.

Electrical Installation Co., Ld. Electric Light and Power. A short treatise on their advantages and applications. Pam. ——. From the publisher.

Griffith, Farran & Co., Ld. Some Account of the Restoration of the Church of St. Mary Overie, A.D. 1892. By W. Arthur Webb, A.R.I.B.A. Pam. 8o. Lond. 1893. [Extract from *The Newbery House Magazine.*] From the author.

Hirth. *Der Formen Schatz.* Vol. 3. Nos. 1–8. 4o. Munich, 1893. From the publisher.

Walter Scott, Ld. Modern Painting. By George Moore. 8o. Lond. 1893. From the publisher.

Society for the Protection of Ancient Buildings. Westminster Abbey. Pam. 8o. Lond. ——. From Mr. John Hebb.

Stamford. A Comprehensive Scheme for Street Improvements in London, accompanied by Maps and Sketches. By Arthur Cawston, A.R.I.B.A. 4o. Lond. 1893. From the author.

Wallen. The Metropolitan Building Act. Some remarks on the Judgment of Lord Coleridge (Lord Chief Justice) and Mr. Justice Cave, in the case of Smith (Appellant) *v.* Legg (Respondent) (1st Feb. 1893). By Frederick Wallen, A.R.I.B.A., District Surveyor of West St. Pancras. Pam. 8o. Lond. 1893. From the author.

Worshipful Company of Plumbers. Lectures on Sanitary Plumbing, House Drainage, and Hot Water Supply. By Robert J. Angel, A.R.I.B.A., Grissell Gold Medallist, Lecturer to the Warrington Technical Institute. Pam. 8o. Lond. 1893. From the author.

Wonnacott. The History and Development of Vaulting in England from the Norman Conquest to the Reformation. An essay by William Malpas Wonnacott, A.R.I.B.A. MS. fo. Lond. 1891. 2 copies. From the author.

*** In the List of "Books Received" in the last issue of this Journal [p. 435 *ante*] it was erroneously stated that *Sefton: a Descriptive and Historical Account, &c.* was presented by Messrs. Longmans, Green & Co., the publishers. The book was presented by Mr. W. D. Caröe [*F.*], one of its authors.

London: Printed by Spottiswoode & Co., New-street Square; and published by The Royal Institute of British Architects, at No. 9, Conduit Street, in the Parish of St. George, Hanover Square, both in the County of Middlesex, 20 July 1893.

THE JOURNAL OF PROCEEDINGS OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

VOL. IX. NEW SERIES — No. 19 — 24 AUGUST 1893

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NOMINATION & ELECTION OF CANDIDATES FOR MEMBERSHIP.

NEW RULES AND REGULATIONS.

At the Council Chamber, Whitehall.
The 7th day of August 1893.

By the Lords of Her Majesty's Most Honourable Privy Council.

PRESENT:
LORD PRESIDENT,
MARQUESS OF RIPON,
LORD KENSINGTON.

WHEREAS there was this day read at the Board a letter, dated the 19th day of July, 1893, from Messrs. Markby, Stewart, and Co., transmitting certain By-laws of the Royal Institute of British Architects, passed at a Special General Meeting of that Institute, held on the 27th day of March 1893, and confirmed at a subsequent Special General Meeting held on the 17th day of April 1893, altering By-laws 7, 8, and 9 of the Institute:

And whereas by Sec. 33 of the Supplemental Charter of the Institute it is provided that no By-laws made by the Institute shall be of any force or validity whatever unless and until they have been approved by the Lords of the Council:

NOW, THEREFORE, their Lordships, having taken into consideration the said amending By-laws (a copy of which is hereunto annexed), are pleased to approve the same.

C. L. PEEL.

By-laws referred to in foregoing Order of Council.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

BY-LAW No. 7.

Nominations.

The nomination of every applicant for admission to any class of membership must be forwarded to the Secretary for submission to the Council, who shall inquire into the fitness and qualifications of the applicant so nominated; and, in the case of a nomination of any person residing in a district or province where there is an Allied Society as hereinafter defined, but whose nomination has not been forwarded through such

Society, the Secretary shall send notice thereof to such Allied Society, and invite observations thereon. The name and address of every applicant for candidature shall be suspended in the Meeting-room and published in the Journal of the Royal Institute, with a notification that any objection or other communication must be sent to the Secretary for submission to the Council within a period from the date of such publication to be fixed by Regulation. If, after due investigation of the claim of such applicant and of any objection thereto, the Council approve him and find him to be eligible and qualified according to the Charter and By-laws, he shall be admitted to candidature, and his nomination shall be signed by the Chairman of the Council Meeting at which such nomination is approved. The nomination shall be read at a General Meeting, and forthwith suspended in the Meeting-room of the Royal Institute until the day of election. The name and address of the candidate, with the names of his proposers, shall be printed in full in the circular convening the Meeting at which such election is to take place. Any communication respecting applicants for admission to candidature, or respecting candidates for election, received by the Council shall be treated as confidential.

By-law No. 8.

Elections.

The election of candidates shall (except in the case in which special provision is made in By-law 9) take place at Business Meetings only, and in no case until due notice thereof has been given in the circular convening the Meeting.

By-law No. 9.

Elections.

The voting at elections shall be by show of hands, and a candidate shall be elected if supported by a majority of those present having a right to vote and voting at such election. Provided always that if a requisition in writing signed by seven or more Fellows and Associates (the majority of whom shall be Fellows) be delivered to the Secretary not less than fourteen clear days before the Meeting at which such election is to take place, that the votes for the whole of the candidates, or for one or more specified candidates, be taken by voting papers, then the election or elections of such candidates shall be so conducted. Voting papers shall then be issued to all Fellows and Associates resident in the United Kingdom, and shall be returned to the Secretary, so that the same shall be received by him at the latest on the Thursday evening before such Business Meeting as aforesaid, folded and enclosed in a sealed envelope, bearing on the outside the signature and Royal Institute serial number of the member voting. The Council shall appoint not less than three Scrutineers, the majority of whom shall be Fellows, and of whom two shall form a quorum, and such Scrutineers shall be summoned by the Secretary to meet at the premises of the Royal Institute, and at such Meeting he shall deliver to them the said envelopes, which shall be opened and the voting papers taken therefrom without being unfolded, the Scrutineers adopting such further measures as they may deem fit to prevent the identification of the voters. The Scrutineers shall then examine the voting papers, count the votes, and report to the Royal Institute at any General Meeting the names of the candidates elected—negative votes in the proportion of one negative vote to four affirmative votes excluding from election. The decision of the Scrutineers, or a majority of them, shall in all matters relating to an election be final.

*** The Regulations for carrying into effect the foregoing By-laws, made by the Council under the provisions of By-law 33, which were confirmed by Resolution of the Royal Institute on the 27th March 1893 [see p. 269 *ante*], are here appended :—

As regards By-law 7—

1. Any objection to an applicant for candidature whose name and address are published in the Journal of the Royal Institute, or other communication respecting him, must be sent to the Secretary for submission to the Council within ten clear days from the date of issue of that number of the Journal.

2. No nomination of any applicant for candidature shall be approved by the Council until after the lapse of at least fourteen days from the date of the publication of his name and address in the Journal of the Royal Institute.

3. The day of election shall be the first Business Meeting held after the expiration of twenty-one days from the General Meeting at which the nomination was read.

As regards By-law 9—

The voting papers shall state the name and address of every candidate, with the names of his respective proposers, and be divided into columns for affirmative and negative votes, such votes only to be counted as are marked in such columns.

SESSIONAL NOTES.

Redundancy in Ornament.

Mr. Gladstone, in the course of an address delivered at the Agricultural Hall on the 5th inst. at the distribution of prizes awarded at the National Workmen's Exhibition, gave utterance to unconditional views on ornamentation in architecture which, though he is not alone in holding them among men of culture, may fitly be noted in this Journal. Impressing upon his audience the position occupied by architecture among the fine arts, though differing from painting and sculpture in its close association with immediate utility, he declared that the results of that art were among the noblest and grandest things in the world. In Mr. Gladstone's opinion, a characteristic of early Christian architecture was its extreme simplicity—every line instinct with a beauty which the rudest and most untutored could hardly fail to recognise. But he viewed with unqualified dismay the tendency in modern domestic architecture to redundant ornamentation. "There are," he said, "a great number of new buildings in London—I hope I am not "treading on any one's toes—with regard to which, if you look at them, you will find "that the architect had either a horror or a dread of leaving bare a single square foot "of wall—as if there were something indecent in leaving bare a square foot of wall! "Excess of ornamentation is of all things the most hostile to a due appreciation of "proportion, because it is in proportion to the perception of breadth and beauty and "line, and in the adjustment of lines to one another, that the essence of the art lies, "and in that you will find the hope of attaining high excellence in great works."

Curriculum for the Siamese.

The sudden leap into prominence in public interest of that comparatively obscure and little-known country, Siam, recalls the occasion, over a year and a half since, when a communication was made to the Institute on behalf of the Government of Siam, submitting a draft curriculum of architectural education for Siamese students, and inviting suggestions for its revision. After due consideration, the Council made various amendments in the draft, and recommended that youths intended for training as architects should be carefully selected in the first instance; that three years of final school preparation should, if possible, be spent in one of the English public schools; and at the close of their school career those only should be encouraged to pursue the architectural profession who had become proficient, and had given evidence of the possession of some nascent artistic tastes; that during the pupilage in an architect's office the subjects partially taught there should also be studied on three evenings of the week by attending evening

classes and lectures; that the practice of sketching and measuring fine architectural[1] specimens, and observing actual building operations, should be incessant; and that the Intermediate Examination of the Royal Institute of British Architects should be passed at the end of the sixth year, and the Final at the end of the eighth year, or soon afterwards. The following is the revised curriculum:

A. School Course.

Years of Study	Age of Student	Cost per Annum	English: Elementary	English: Grammar, Composition, and Literature	English: English History	English: Geography	Pure Mathematics	Mixed Mathematics and Science	Drawing	Language
First	14	£100	Reading, Writing, Spelling, Dictation.	English Grammar, Simple Composition.	Elementary Outlines, Norman Conquest to Richard III.	Outline of the World. The British Isles.	Arithmetic, Algebra, Euclid, Book I. to Prop. 20.		Freehand.	French.
Second	15	£150	Ditto.	English Grammar, Composition.	Henry VII. to accession of George I.	Europe and Asia.	Arithmetic, Algebra, Euclid, Books I. to II.	Mensuration.	Freehand, Geometry.	French.
Third	16	£150	Reading, Writing, Dictation.	English Grammar, English Literature, Composition.	George I. to Battle of Waterloo.	America, Africa, Australasia.	Arithmetic, Algebra, Euclid, Books I. to III.	Mensuration, Elementary Mechanics and Physics.	Freehand, Geometry, Elementary, Perspective.	French.

B. Course of Pupilage in an Architect's Office.

Fourth	17	£125	1. Tracing and copying of drawings. 2. Copying specifications. 3. Preparing detail drawings.	4. Elementary facts as to building materials. 5. The five orders of architecture.	6. Plane Geometry. 7. Freehand Drawing from the flat.
Fifth	18	£425	1. The making of elementary drawings traced from rough sketches. 2. The general history of ancient architecture in Europe.	3. The general character and meaning of Greek, Roman, Renaissance, and Gothic architecture. 4. Building materials and construction.	5. Perspective. 6. Surveying and Levelling. 7. Freehand drawing from the round.
Sixth	19	£200			
Seventh	20	£200	1. The planning and designing of new buildings. 2. The right application of different materials in buildings.	3. The strength, strains and powers of building materials. 4. Specifications.	5. Ornament and sculpture in relation to architecture. 6. Sanitary science. 7. Freehand drawing from the life.
Eighth	21	£200	1. Architecture as a creative art. 2. Architecture as a constructive science. 3. The combination of both the foregoing in creating new buildings.	4. The value of building and land. 5. Excellence of building as seen in work.	6. Geology. 7. Professional practice.

The scheme, thus amended, was finally treated by Mr. Arthur Cates, as Chairman of the Board of Examiners in Architecture, Professor Aitchison, A.R.A., as Professor of Architecture, and Mr. Phené Spiers, as Master of the Architectural School, at the Royal Academy; and the suggestions and comments made by them in writing were forwarded to the Siamese Legation, with the revised curriculum. The Legation, in a letter of acknowledgment, referred to the valuable treatment the curriculum had received at the hands of the Council, and stated that the trouble and pains they had taken in the matter were keenly appreciated by the Siamese Government, who would not fail to give effect to the recommendations.

New "Final" Time-table.

The new Final Examination (to qualify for candidature as Associate), the draft of which was printed in *The R.I.B.A. Journal* [page 418 *ante*], was submitted to the Council on the 31st ult., and approved. As already announced, the first of the Final Examinations, being the third stage of the Progressive Examinations, will be held early in 1895. The draft of the "Advice to Candidates" in these Examinations, which was published some three weeks ago in *The Builder* and *The British Architect*, was submitted to the Council at the same time, and approved by them.

THE CURRICULUM AT KING'S.

KING'S COLLEGE, STRAND, LONDON.

The Architectural Curriculum at King's College, London, formed the subject of an article and was dealt with at length in an earlier page of this *Journal*;* but for the information of students and others, in view of the near approach of the new session 1893-94, it may be well to re-state that the object of the courses, which are under the direction of Professor Banister Fletcher (who is assisted by Mr. James Bartlett, Demonstrator, and Mr. James Fasnacht, B.Sc. Instructor), is to afford instruction in the theory and practice of Architecture, and in the application of the Principles of Mechanics to Construction. The classes are also specially arranged to enable architects' pupils, improvers, and others who purpose adopting the profession of architecture, to prepare for the Progressive Examinations of the Royal Institute.

The courses of instruction range over three years, and although students are permitted to join any or all of the classes, and, if necessary, to take the three courses in one year, it is most desirable, if time permits, that they should go steadily through the whole curriculum, and spread their studies over the full period of three years. Professor Banister Fletcher is willing to meet intending students at the College or his offices, and render such advice and assistance as may be needed.

An examination is held at the conclusion of each course, and in addition to the certificates, medals, and prizes which are awarded by the College to students who have acquitted themselves with credit therein, gold, silver, and bronze medals are given by the Worshipful Company of Carpenters.

Mr. Arthur Cates gives earnest of his continued interest in the new curriculum at King's College, and has now arranged to present annually a medal (of which, through the kindness of Mr. Cates in presenting a bronze replica, a representation is here given) to the student who stands first in the third year of the College course, the donor laying it down as a condition precedent, to take effect after the present year, that such student shall have passed the Intermediate Examination of the Royal Institute. By this means, says Mr. Cates in a letter to the Council, these classes may be brought more directly under the influence of the Institute, and a relation established between the two which may lead to many of the College students becoming "Students R.I.B.A.," and to the College course being directed in a satisfactory channel.

The Architectural Reference Museum is open to students, who are permitted, under certain conditions, to borrow practical models and drawings therefrom. This museum contains nearly two hundred casts of the best examples of Greek, Roman, Romanesque, Byzantine and Gothic, and Renaissance examples, besides a large number of photographs and detail drawings; numerous specimens are exhibited of building materials, sanitary appliances, and models (some specially prepared). Not the least important section of the museum is that set apart for books and models. The Carpenters' Company, with that munificence which it invariably displays in a good cause, has not only fitted it up for the books which form the reference and lending library attached to the classes, but also with cases for the reception of models of roofs, floors, framing, joists, &c. It may be here stated that students nominated by the Carpenters' Company pay only half fees, and application for such nominations must be made in writing, giving particulars of circumstances, to the Clerk of the Company (Stanton W. Preston, Esq.).

MEDAL PRESENTED ANNUALLY BY MR. ARTHUR CATES.

* See *ante*, p. 14.

The privilege is accorded to students who have shown special diligence in their studies of being selected by the Professor to visit works he may have in progress, and buildings of special interest in the metropolis.

Each course of the curriculum consists of thirty-three lectures, divided into three terms:—*Michaelmas*, beginning on the 5th October, and ending on the 22nd December; *Lent*, from the 11th January to the 21st March; *Easter*, from the 12th April to the 4th July. Thus eleven lectures are delivered per course in each term.

The order of the courses is as follows:—

First Year, or Elementary Course.

Mondays, 3 *p.m.* to 4 *p.m.*

Michaelmas Term.—Architecture: its origin, early history and development, including Assyrian, Egyptian, and distinctive features of same; Etruscan architecture. Building Materials, their structure and manufacture; stone, natural and artificial, in its several varieties, sand, limestone, slate, &c. The decay and preservation of stone.

Lent Term.—Greek architecture: its history, the five Orders, proportions, mouldings, ornament, &c. Elementary principles of construction. Ratio of support, principles of proportion, walls. The arch, footings and foundations, floors, &c.

Easter Term.—Roman architecture: its history, the Orders, further development, &c. Basilicas, thermæ, theatres, and chief buildings, and comparison of their sculpture and ornament with Greek work. Building Materials, their structure and manufacture; bricks, terra-cotta, tiles, pipes, tile pavings, mosaic, &c., in their several varieties. Timber, hard and soft wood in its numerous varieties as used in building.

Second Year, or Advanced Course.

Mondays, 4 *p.m.* to 5 *p.m.*

Michaelmas Term.—Early Christian architecture in Rome and Italy: its rise, development, and characteristic points. Byzantine architecture. Elementary construction, including masonry and use of concrete both in footings and buildings, timber framing, centering, simple roofs in wood and iron, &c.

Lent Term.—Romanesque architecture in Italy, Germany, France, Normandy, &c. Sanitary science, plumbing. Principles of drainage to country and town houses, their water supply and storage. Ventilation, Heating, &c. Building Materials, various uses of timber, its decay and preservation. Manufacture of iron for building purposes, and its several adaptabilities, cast, malleable, rolled, &c. The decay and preservation of iron.

Easter Term.—English architecture from the tenth to the fourteenth century. Advanced construction. Artificial foundations; Mechanics of earthwork and walls; fireproof construction in its numerous forms and varieties, from its introduction to present day.

Third Year, or Final Course.

Fridays, 4 *p.m.* to 5 *p.m.*

Michaelmas Term.—French, German, and Italian Gothic, their various characteristics. Advanced construction. Iron construction in girders, cast, rolled and riveted, in trusses, roofs, &c. Timber framing of domed roofs, &c. Hammer-beam, and other varieties of trusses. Strength and weight of materials, walls, concrete, wood, iron, &c., in compression, tension, and cross strain; their determination by formulæ.

Lent Term.—Italian, French, German, and Spanish Renaissance, its various characteristics, due to climate, &c. Application and adaptability of materials to building purposes, their effect upon the character of the building, &c. Limes, cements, and their use and manufacture. The finishing and fitting of buildings.

Easter Term.—English Renaissance—Tudor, Elizabethan, and Jacobean. Development of modern architecture traced through the eighteenth and nineteenth centuries to the present day. Laws relating to building, by-laws, Metropolitan Buildings Act, Public Health Act, &c. Building contracts, party-walls, specifications, dilapidations, &c. Estimates, quantities, schedule of prices, how dealt with. Superintendence of works. Rights of light and air, and how treated. Dangerous structures, shoring, needling, &c.

The Architectural Studio, which is open every evening from 6 till 9, except Saturdays, is under the charge of Mr. Fasnacht, B.Sc., Instructor, who attends on Wednesday and Friday evenings.

The Presentation of Prizes to the successful students of the past session, and the Conversazione, will take place on Wednesday the 4th October, when Professor Banister Fletcher will give a short lecture on "Some of the Churches "and Cathedrals of the World," which will be illustrated by the lantern light. Particulars may be obtained at King's College, Strand, or at Carpenters' Hall, London Wall.

REVIEWS. XIII.

(34.)

ENGLISH FURNITURE IN THE EIGHTEENTH CENTURY.

Furniture and Decoration in England during the Eighteenth Century. Facsimile reproductions of the choicest examples from the works of Chippendale, Adam, Richardson, Heppelwhite, Sheraton, Pergolesi, and others. Edited by John Aldam Heaton. In 2 vols. fo. Lond. 1889-92. [*Mr. John Bumpus*, 350, *Oxford Street, London, W.*]

In the pages of *The Nineteenth Century* for March of last year Baron Ferdinand Rothschild took up once again the oft-told parable of England's indebtedness in the domain of Art. Were the denial of the power of original production strictly true, we might perhaps be excused for applying to ourselves the prophetic boast of Rome's greatness

> Tu regere imperio populos, Romane, memento;
> Hae tibi erunt artes.

This was to be our sphere of energy, and here, at least, we have some original work to show, but such a publication as the one under notice comes opportunely to give us pause in a too ready submission to our critics. What Mr. Aldam Heaton thinks himself of the qualities of his subject-matter he designedly expresses in a hyperbolical figure of speech. Carlyle credited the eighteenth century with one big thing—the French Revolution; Mr. Heaton adds a second—the English

school of Furniture Design; and he does not pretend for a moment that this same school, which does us so much honour, was of native growth. The mystery is not so much where its inspiration came from—the France of Louis XIV. was the cradle of the style—but the exact manner and time of its coming. But who could look with an unprejudiced eye, not at the more florid examples, but at the unnumbered products of a simpler and more sober imagining, and call them French? The style was not indigenous, it is true; but it was racy of the soil, graceful and charming, with a reticence rare to the French temperament—a distinguishing characteristic of our own.

It is precisely this class of work which Mr. Heaton has set himself to illustrate, as far as he can—the vernacular of the Art, so to speak—the chairs and tables on which the members of modest households sat and at which they took their meals; but the difficulties of doing so have, in the nature of things, not been wholly surmounted. Mr. Heaton's admirable volumes, after all, offer but a comparatively small selection of furniture adapted for people of small means. Designers like the brothers Adam were engaged exclusively on work for rich clients; and, further than that, it is unfortunately the fact that the Chippendales and Sheratons of the trade were only too well versed in the ways of self-advertisement, only too ready to pander to every vagary of taste and fashion. The chief wonder, on a nearer acquaintance with them, is that they thought it worth their while to illustrate so much as a single simple design, not that they illustrated so few and passed them over in such contemptuous silence. In a preface tinged with empty bombast, Chippendale professes an absorbing passion for the neo-classicism which his clients believed themselves to hold so dear. If they love the five Orders, so will he; but while he flatters their taste, he insults their understanding by casting his classicism to the winds directly he sits down to work, and producing design upon design in the most redundant forms of a decaying Renaissance. To an absurd extravagance in his pretensions he united an appetite, Vitellian in its comprehensiveness, for whatever was exaggerated in every style. He passes from a first course of the wildest fantasies of French designers to an ungarnished and tasteless dish of churchwarden Gothic, and finishes up with a hash of crude and ill-assorted fragments from Chinese models.

All this is somewhat disconcerting in the eponymous hero of a national style, never better appreciated than it is at the present day.

Mr. Heaton, somewhat cruelly, goes the length of classifying the plates of designs in Chippendale's book under four heads: First "good," then "passable," then "fantastic and foolish," and finally "preposterous or outrageous." Under the first head he puts 60; under the second, 103; under the third, 146; under the last, 107.

But, with all his limitations, Chippendale did a great work, and Mr. Heaton takes a good deal of the sting out of his criticisms by his frank admission that the style is fittingly known by his name.

It was perhaps unfortunate that so many of the furniture designers were primarily carvers, the Chippendales among others. Their tendency was towards the ornamentation of existing forms rather than their origination—in many cases to the destruction of interest—and the tendency was a natural one, unless they were to forget the influence of their early training. The singular thing is, that these forms seem to have been to their hands in any quantity at a time when the history of the style is a perfect blank to us. It is obvious that the work had been going on for some time, that the rank and file had fought their Inkerman before the commanding officer appeared upon the scene to reap the honour and glory. Mr. Heaton argues, with much reason, that if a book full of elaborate copper and steel engravings with a wide range of subjects could appear so early as 1739—the year of the publication of W. Jones's work—the first seeds of the style must have been sown in the earliest years of the eighteenth century.

Marlborough's wars mark the artistic uprising of the English people. Henceforth they rub shoulders with their neighbours of the Continent, to their manifold advantage. The sudden activity of the literature of the so-called Augustan age was the outward and visible sign of a movement with many, almost unsuspected, ramifications. Insular prejudices became modified by travel, and the fancy was stimulated by the sight of unaccustomed forms. It is not difficult to picture to oneself an Arthur Young of the period, with a taste for good furniture, returning from his leisurely tour of observation to inspire fresh departures among English craftsmen on the lines of French Renaissance. The simple models from which Chippendale started are the molehills which testify to the existence of activities beneath the surface—activities of the artistic journeyman rather than those of the artist by profession.

When once the style had become the focus for the interests of the world of fashion, change was incessant. Sheraton speaks of designs of Heppelwhite's, only some two years old, as having already caught the decline. The elements of decay are apparent enough in this restless itching for mere movement, and the end of the century was marked by a degradation which made the death of the style with its closing years an unregrettable incident.

This book, which boasts 200 plates, and gives examples of the work of a score of different designers, a few of them specialists, the larger number general practitioners in the most liberal sense of the word, is worthy of careful study. There are varieties of excellence, of course, and the scrupulous but exquisitely dainty neo-classicism of the brothers Adam—many of whose original drawings in the Soane Museum are reproduced, which are, as a matter of fact, the only real contributions to that favourite cult—is balanced at the other end by the exuberance of certain offerings to the spirit of Rococo. The fantastic, however, is rigorously excluded from a volume which is putting the arguments for the school, not against. The whole is completed by a short but instructive introduction which leaves one with

an appetite for more, and notices of the various artists who are represented by the reproductions of their designs.—Arthur Edmund Street.

(35.)

EPIGRAPHIA INDICA.

Epigraphia Indica of the Archæological Survey of India. Vol. II. Edited by Jas. Burgess, LL.D., C.I.E., &c., &c., assisted by A. Führer, Ph.D., Archæological Surveyor, North-Western Provinces and Oudh. Large 4o. Calcutta 1892. *Printed and published by the Superintendent of Government Printing, India. [Kegan Paul, Trench, Trübner & Co., Paternoster House, Charing Cross Road, London, W.C.]*

Part XII., vol. ii. of the *Epigraphia Indica* has been received from the Government of India. This Part contains a number of those rather absurd effusive laudations to which the Sanscrit name *Prasasti* is given. These, as was explained in a former notice, are of value from the fragments of historical reference they contain. This Part has a number of Jaina inscriptions from Mathurâ which have some architectural interest. A number of these have resulted from Dr. Führer's discoveries which he made at the Kankâlî Tîla in the cold season of 1890-91, and are translated by Dr. Bühler, who ascribes the earliest of them to the middle of the second century B.C. The Jainas attached a great merit to those who erected temples, and these inscriptions show that they attached a similar merit to the giving of statues to the temples. Most of them have been inscribed on statues, and record the name and family of the donors. In one we have an evidence of the close connection there seems to have existed between the Jainas and the Buddhists; their sympathy for every living thing is well known, and it finds expression from a lady who presents an image, and her wish is recorded that it might be " for the welfare and happiness of all creatures." One peculiarity of the Jaina temples,—or at least of some of them,—is that of four doors in the *garbha*, or cell, one opening to each of the quarters, with figures of the deity facing to each door. This form of temple must have existed in the second century A.D., which is roughly about the date ascribed by Dr. Bühler to inscription No. xiii.; it records the gift of a statue, which is described as "a quadruple image of four standing " naked Jinas." A number of the inscriptions record the gift of similar statues, which is evidence that this form of temple was common at the time. It ought, perhaps, to be explained that the naked figures in sculptures are a peculiarity of the Jainas. There were two sects among them, the Digambaras and Swetambaras—this last term meaning " white-robed," and the other " sky-clothed." The Digambaras represented their sacred figures in such a manner as to express that they were covered with nothing but the heavens above. The following statement made by Dr. Bühler is highly important:—" . . . with respect to the " history of the Jaina sect, we learn "—from one of the inscriptions, No. i.—" that the Jainas were " settled in Mathurâ in the second century B.C., " and "—from another inscription, No. xx.—" that " an ancient Jaina stupa existed in Mathurâ, " which in A.D. 167 was considered to have been " built by the gods, *i.e.*, was so ancient that its " real origin had been completely forgotten." Dr. Bühler, in a Paper he read before the last Congress of Orientalists in London, on Jaina sculptures at Mathurâ, mentions one that represented the " worship of a stupa." Beyond this I cannot at the moment recollect having seen any previous mention that the Jainas erected stupas. If this statement is correct, it becomes a valuable addition to our knowledge of the architecture of India. It is at the same time another evidence of the close connection that existed between the Jainas and the Buddhists; it also goes far to establish what has been previously assumed, that the stupa did not originate with the Buddhists, but was common in India before the Buddhist period. Our knowledge on this point was derived from what Buddha said to Ananda before his death, as it is recorded in the *Mahâ-Parinibbâna-Sutta.* It is there stated that when a Tathâgata, a Pakkeka-Buddha, an Arahat-Buddha, or a great king died, it had been the custom to erect dâgabas, or stupas, as monuments; and from what is said of them, it is highly probable that these erections had been objects of reverence.—Wm. Simpson.

THE ROYAL GOLD MEDAL 1893.

The Royal Institute of British Architects,
9 Conduit Street, W., 23rd June 1893.

Sir,—We have the honour, on behalf of the Council of the Royal Institute of British Architects, to inform you that the current year's Royal Gold Medal for the promotion of Architecture, the gift of Her Majesty the Queen, was presented to Mr. Richard M. Hunt, at a General Meeting of the Institute held last Monday evening; and that the President's address on the subject, with Mr. Hunt's reply and other speeches, are printed in full in our *Journal*, a copy of which we enclose.

We are to ask you to convey to The Queen the thanks of the members of the Institute for this Royal Medal, and their dutiful acknowledgment of the honour thus conferred upon them by Her Majesty.—We are, &c.,

William Emerson, *Hon. Secretary.*
William H. White, *Secretary.*

General The Rt. Hon. Sir H. F. Ponsonby, G.C.B.

Privy Purse Office, Buckingham Palace,
28th June 1893.

Gentlemen,—I have to thank you for your letter of the 23rd inst. and the accompanying number of *The Journal of the Proceedings of the Royal Institute of British Architects* containing an account of the presentation of The Queen's Gold Medal to Mr. Richard Hunt, which I have laid before Her Majesty.—I have, &c.,

Henry F. Ponsonby.

No. 9, Conduit Street, Hanover Square, London, W.

SOME PROBLEMS OF TOWN DEVELOPMENT.

By William C. Street [*F.*].

A Paper read before a General Meeting of the Institute, Monday, 5th December* 1892.

Mr. J. Macvicar Anderson, *President*, in the Chair.

Mr. President and Gentlemen,—

THE subject of the development of large towns, proposed by the Science Committee for the consideration of the Royal Institute this evening, is so very large and important, that in preparing, at the request of the Committee, a Paper to serve as an opening to the discussion, I have only attempted to indicate what appear to me to be principal or vital problems, and deserving the most serious attention.

In London we have hitherto proceeded upon a piecemeal system in the amendment of ancient and insanitary conditions of existence. Notwithstanding our radical proclivities, there is still in the mind of the average Briton so much reverence, or deference, for ancient or prescriptive rights, that it is only spasmodically, by fits and starts, that the pressure tending to retain things as they are is lifted (probably by some singular or exciting occurrence), and there is a sudden and well-intended but impulsive movement in some particular direction. It might perhaps be better if all proposed changes were considered in a more impersonal manner, with a wider range of view, and a clearer perception of the effect which a change, however theoretically perfect in itself, will have upon all the parts of the body corporate, so that our advance, while undelayed, shall be rhythmic or harmonious.

Open Spaces and Thoroughfares.

It may, at first, be considered that the subject of open spaces is more a sanitary or a surveyor's question than an architectural one. Upon reflection, however, it will be seen that it is the extension of building generally that creates the necessity for open spaces, and that in the erection of new buildings they should be designed with reference to the provision of open spaces, and their relation to them. Modern practice has been too much the opposite of this, and buildings have been extended over or erected upon small spaces, until those existing in the heart of already congested cities, or the spaces lying between the cities and suburban villages, have been built over, thus driving farther and farther from over-populated districts that provision of fresh air which is so necessary to the life of each in regard of our physical organs; while the wonderfully beneficial effects of recreation and exercise upon the minds as well as the bodies of those whose toil throughout a great part of the day has to be conducted in such

* An abstract of this Paper, with the Discussion thereon, appears on pp. 72-80 *ante*.

places, and in such manner, and at such pressure as to weary and exhaust, have been wholly overlooked. It has not been until of late years, when the evil has become so crying and loud a one, that efforts have been made to combat any further development of the evil, and, if possible, to undo some of the worst examples.

In the extension of any large city, therefore, instead of proceeding in a haphazard manner, each building being considered from its individual necessities, and placed in its position by right of possession or purchase of so many square feet, architects and public authorities should have regard to all the surroundings and the requirements of the population, permitting no encroachment upon land that should be intended in a general plan or scheme to be ultimately reserved as an open area. This, of course, recognises that there should be some plan or scheme upon which the future development of a city should be allowed to take place.

A great enemy, hitherto, to any such beneficial development has been the land-grabber or developer, who buys up at almost any price old-fashioned mansions or residences in the outskirts, having often some acres of land belonging to them, and plans upon the space so acquired as many streets as possible, having reference to existing regulations as to widths, and giving to each tiny plot a minimum of depth, in order to create an innumerable quantity of ground rents, very saleable in the market, whereby he makes a gain upon his iniquitous transactions. The result is that upon a comparatively small area we find, in the course of an incredibly short space of time, instead of one residence with about a dozen chimneys, several hundred houses each with eight or ten chimneys, and the smoke-producing capacity of the same area multiplied a thousand-fold.

It will be said that this does not affect architects, as it is the work of those to whom architecture, art, or any superior qualities, are wholly foreign; and that while legislative regulations allow such proceedings, and there is a demand for such buildings, they will continue to prosper and multiply. It may be replied that it is certainly within the power of architects, and artists, to advise or influence public bodies, and to so direct public taste and opinion that measures may be enacted in order that the provisions for the development of accommodation for increasing population shall be in accordance with some recognised and wholesome system or plan, which should be followed as closely as circumstances admit.

Large and noble main thoroughfares give of themselves a great deal of what is required, and, with numerous ornamental and recreative open spaces at convenient distances between them, the minor streets always being sufficiently direct and wide, will probably be a most likely way of effecting this. There are very many who will exclaim at once that this is the safest way to improve the picturesqueness out of our lives, and to reduce everything to a monotonous sameness and level. This is not inevitable, though the first impressions of the suburbs of some cities, laid out with very wide avenues, skirted on all sides by unfinished streets, and the intervening spaces leading a troublous existence, partly as market gardens, and partly as local gehennas, are very distressing. There is a sense of hopeless ghastliness that depresses the spectator, and he returns to the warmer and brighter life of the central arteries with feelings of commiseration for the poor folk who are doomed to live outside in such desolation. Let, however, a few years pass, and the avenues become lined with buildings worthy of architects, while the adjacent streets are also healthily and brightly finished, with intermediate and diversified recreation and ornamental pleasure grounds set apart, then the same traveller on revisiting the scene will hardly credit the transformation, or recognise in it the desolate unbuilt suburb.

Again, there are in certain imperial or royal cities regulations to prevent the building of dwellings outside certain limits until the intervening spaces are filled up, on the plan projected or recognised by the authorities, thus doing much to prevent the future possibility of such a gloomy aspect as that I have described.

Such stringent regulations may, at first, frighten those who look upon so-called natural developments as being alone beautiful; but it becomes a question as to what is natural or unnatural, and what is beautiful or what is ugly. A disease sometimes renders the features of the afflicted one beautiful to look upon, while all within is cancerous and being slowly destroyed.

A square or rectangular development, like that of American cities, is unnatural. The tendency in all cities is for the traffic and business to pass and repass upon lines radiating from the centre or heart, where the banks, the markets, the principal commercial offices, and the public buildings are located. It is curious to see, in cities allowed to develop themselves, how the thoroughfares seem to be all more or less impressed with the same object, that of being utilised as channels to and from the centre. It is in proportion as it is so used that a thoroughfare is prosperous or the reverse.

The impression given by a radial development, whether from the centre of a city or from several subordinate centres, may be far from unpleasant. Indeed, one of the scenes that made a great impression upon me early in life was finding myself unexpectedly in an open space in a wood in Normandy, from which five or six large avenues of great trees led away to different points of the compass. It was after a weary day, but the scene was to my mind so grand and so full of local colour, that it has remained with me ever since.

While a rectangular development defeats this, it also entails upon the inhabitants the necessity of traversing two sides of a triangle in going from one point to another. Perhaps, however, in rendering it more troublesome to reach the centre, for want of a direct diagonal or radial line, the tendency would be to diffuse the points of interest, and not to allow them to remain exactly where they were placed in the early years of a city's existence.

Some have suggested districts being set apart for the industrial or labouring classes; but no development which has for its object the separation of the classes can be a healthy or natural one. We are not independent of one another, and the truism will always remain that close to a St. James' there is a St. Giles', and it should rather be our endeavour to render St. Giles' as healthy and wholesome as possible, even at the risk of robbing it of some of its picturesqueness. If the minor thoroughfares are salubrious—and there is no reason why they should not be—it is a mutual convenience for the rich and for those who minister to their comforts and necessities, to be within easy distance of each other; while the low depth of degradation into which people sink who dwell together in want and misery, with all brightness shut out of their lives, would be scarcely attainable under the healthy conditions I have indicated.

In laying out a district it is also probably better for the health of the dwellers in the main avenues that the minor streets between them should be lined with buildings of less height. The air at the backs of the large mansions is thus open to the circulation of currents at a lower level, and not so stagnant and unhealthy as it is when the space at the back is enclosed on all sides by lofty buildings.

In laying out the proposed open spaces it would be of the greatest importance to avoid the dank, mangy, circumscribed, and prisonlike look of the gardens generally enclosed in our London squares. I lived in a London square for several years, but only twice was I inveigled within the lugubrious precincts opposite my windows, and on each occasion was much relieved when I was able to beat a retreat.

The provision of large parks, stiff, flat, bare, and uninteresting (to quote the words used by the author of a Paper read at the Hygienic Congress of 1891), is also not at all what I wish to advocate in this Paper. But a so-called park need not have any of the above qualities attached to it. With intelligence and art a wild space can be transformed to the purposes of a park with great success. There are perhaps some of us who are old enough to recollect passing in their excursions up the Thames the

undelectable fields on the south bank in the neighbourhood of Battersea. Should there be such, and they would take the trouble to revisit that locality, they would hardly recognise the place, so great has been the change—a change which has conferred upon one of the poorest metropolitan districts the advantages of beautiful surroundings and effects, which should eventually do something to raise the bodily and mental physique of vulgar and struggling existences.

At the Congress alluded to it was proposed that, before further building was permitted around a congested district, a zone of clear space should be provided, and the additions beyond should be in the form of picturesque suburbs. It may be observed that the effect of this would be to augment still further the value and the unearned increment of the possessor of land at the centre, and also to create differences of value of contiguous plots of land, to such an extent that it might be advisable to expropriate property in such land and vest it in the State, which might lease and use it for the benefit of the nation, somewhat similar to Corporation lands in the City of London. Until recently, freeholders looked upon compulsory powers for the acquisition of their property as a certain and great profit; but a change has now come quite in the other direction, and a corporation or government buying property need not fear having to give more than the recognised 10 per cent. in advance of its present value, which has to be assessed without reference to any proposed developments.

In dealing with the development of modern cities we must not forget the greatest of all roads, the railway. A central railway station would make a city appear to be built for the railway, and to be only one large railway station, in addition to the nuisance which would be caused to all other traffic by the traffic to and from the railway. It would be better, therefore, that, as at present, the different main lines should come to and round the city, but not through the city. The vehicular traffic to and from the railways would thus be better distributed, while a circular connecting line would provide for the interchange of traffic, and the suburban or omnibus traffic could be taken in underground lines, or by tramways.

Since I commenced the consideration of possible developments of cities I have been informed that all such studies are wholly visionary; that all our large capitals are so perfected and set in their characteristics that any change is impossible, and there would not be any occasion for the execution of any new plan, however good it might be. This is hardly a correct view. We have in our own time seen the metamorphosis effected by Baron Hausmann in Paris, and there are now proceeding in the chief cities of Italy developments which cause very great sorrow. Italy may be considered the queen of the world with regard to historical monuments, but an unhappy madness has seized the authorities, and they seem to be everywhere sweeping away the most precious archæology in order to construct big, ugly, rectangular, modern thoroughfares through the hearts of cities full of ancient edifices and associations, while the increased accommodation necessary could have been better provided on almost any other plan.

The Continental representatives at the Hygienic Congress approached the subject of city improvements with much lighter hearts than we are disposed to do. Herr Lechner (Buda-Pesth) said he considered the best plan was to pull down the old town, and to build an entirely new one in its place.

Herr Stubben (city architect of Cologne) urged the establishment of a comprehensive building plan, a uniform project for the improvement of traffic, and the provision of streets and open spaces, in the event of private enterprise not providing enough building land to meet the demand. He also stated that in any future extension of Cologne, 5 per cent. of the land would be reserved for public parks, another 5 per cent. for plantations in streets and open places; and of the remaining 90 per cent., 60 per cent. would be given to buildings, and 30 per cent. to streets.

Mr. Blashill ventured to argue that it was quite possible to make an old town into

a new one, and I hope he is present to-night, and will give us some information as to the process.

I have prepared the accompanying sketch (fig. 1), showing a type of what may be considered the natural development of a great town or city, the earliest condition being

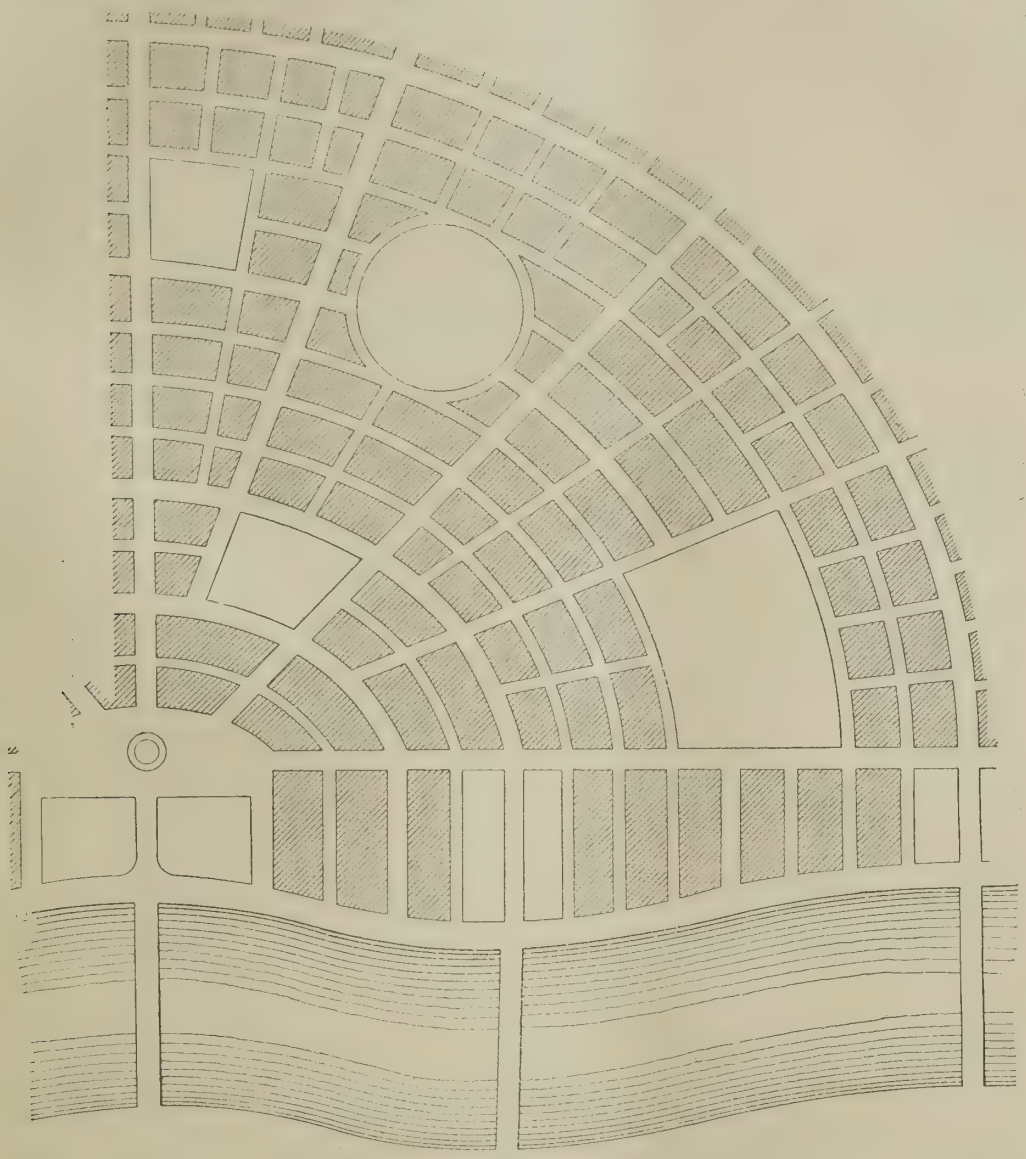

Fig. 1.—Natural Development of a Town.

the settlement of a mercantile community upon the bank of a navigable river. As the settlement tended to spread first along the bank, the early form would be that of a portion of an oval, with the two centres parallel to the bank ; and from this nucleus the town or city would increase in curves parallel to the original oval, but with roads at convenient intervals leading towards the centre. If in its early stages care had been

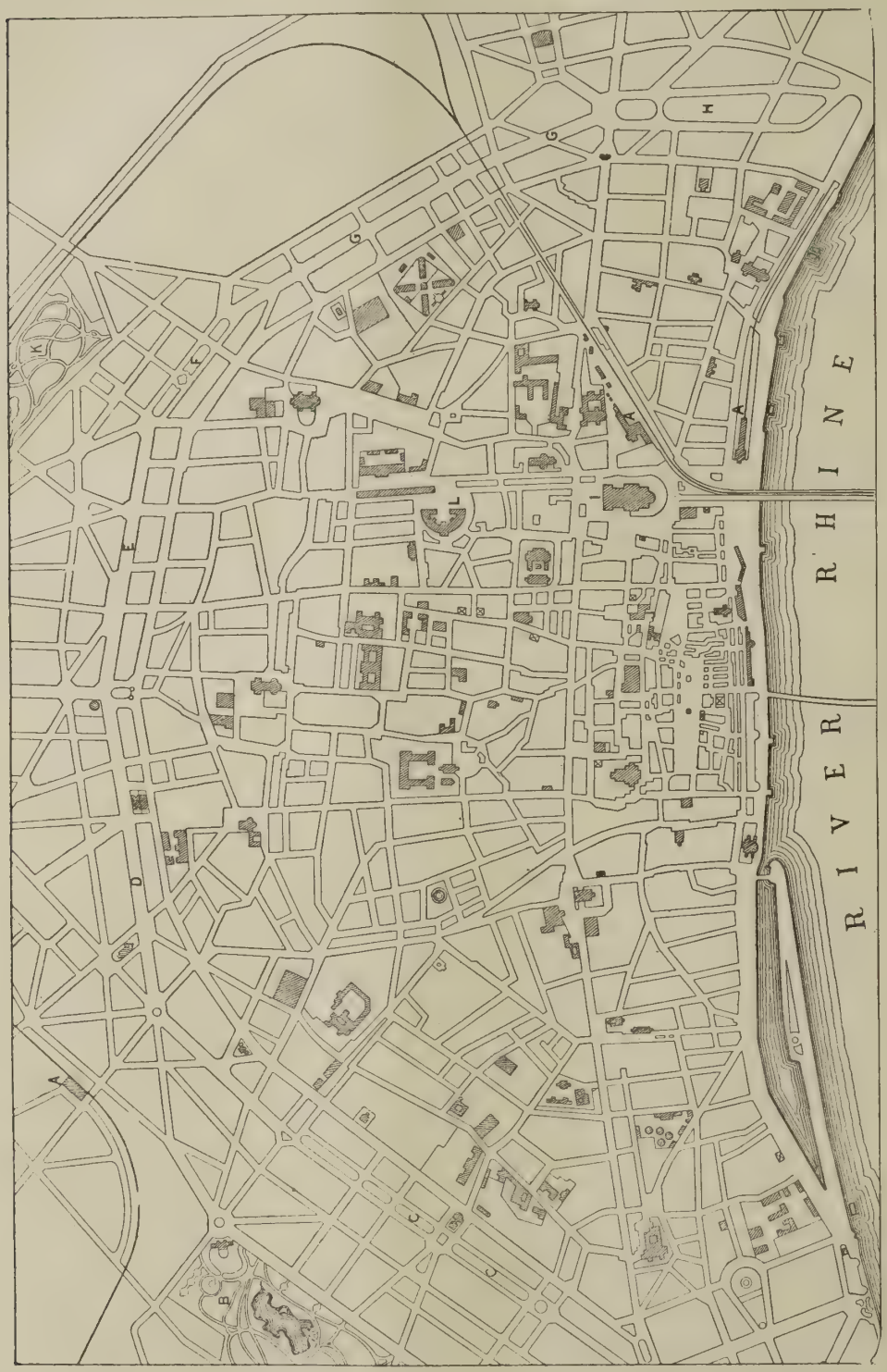

FIG. 2.—COLOGNE.

A, Railway stations. B, Volksgarten. C, Sachsen Ring. D, Hohenstaufen Ring. E, Hohenzollern Ring. F, Kaiser Wilhelm Ring. G, Hansa Ring. H, Deutscher Ring. I, Cathedral. J, Rathhaus. K, Stadtgarten. L, Justiz Pal.

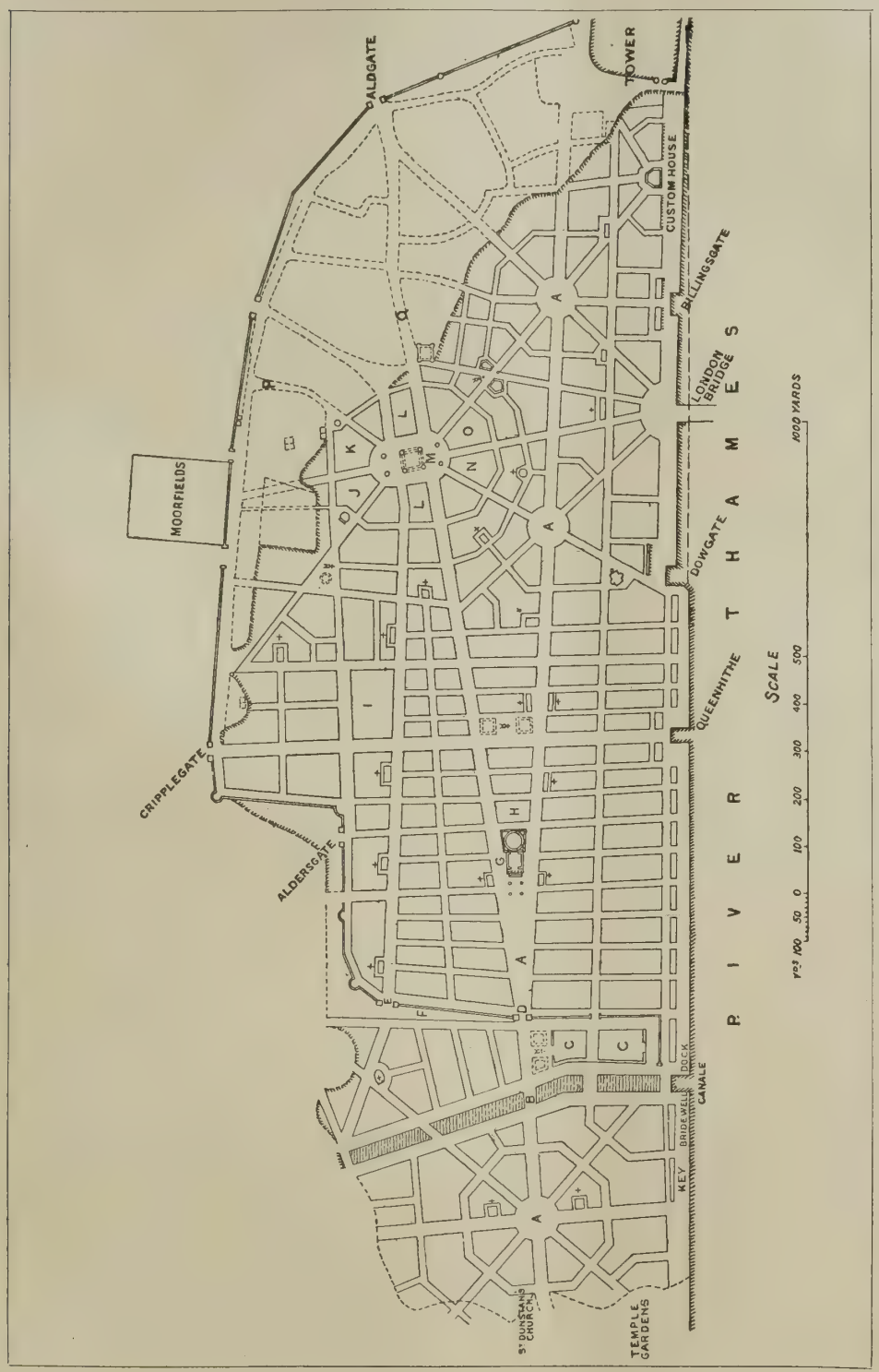

FIG. 3.—SIR CHRISTOPHER WREN'S PLAN FOR REBUILDING LONDON.

A, Piazza. B, Fleet Bridge. C, Wood Mercate. D, Lidgate. E, Newgate. F, London Wall. G, St. Paul's. H, Doctors' Commons. I, Guildhall. J, Post Office. K, Excise Office. L, Goldsmith. M, Royal Exchange. N, Ensurance. O, Mint. P, Broad Street. Q, Leadenhall Street.

taken in governing the development, the provision of open spaces or lungs could have been made, after some such manner as that shown upon this diagram. The levels and peculiarities of any site would naturally cause many variations in the details, and these would get rid of the monotony of the diagram, which is intended to show only the direction in which a natural development would proceed.

That this is not an altogether chimerical assumption will be seen by the diagram fig. 2, p. 474, of the City of Cologne, as now being extended under State direction. The plan proposed by Sir Christopher Wren for the rebuilding of London after the Great Fire, and which I have had enlarged for this Paper (fig. 3, p. 475), is also interesting as presenting more or less the same features.

Air Spaces round Buildings.

The clause in the Metropolitan Building Act of 1855 relating to air spaces round buildings was modified in 1882 to the following (45 Vict. cap. 14, sec. 14) :—

"Every new building begun to be erected upon a site not previously occupied in "whole or in part by a building, after the passing of this Act, intended to be used wholly "or in part as a dwelling-house, shall, unless the Board otherwise permit, have directly "attached thereto and in the rear thereof an open space exclusively belonging thereto "of the following extent :—

"Where such building has a frontage not exceeding 15 feet, the extent of the open "space shall be 150 square feet at the least ;

"Where such building has a frontage exceeding 15 feet, but not exceeding 20 feet, "the extent of the open space shall be 200 square feet at the least ;

"Where such building has a frontage exceeding 20 feet, but not exceeding 30 feet, "the extent of the open space shall be 300 square feet at the least ; and

"Where such building has a frontage exceeding 30 feet, the extent of the open "space shall be 450 square feet at the least.

"Every such open space shall be free from any erection thereon above the level "of the ceiling of the ground floor storey, and shall extend throughout the entire width "(exclusive of party or external walls) of such building at the rear thereof."

The regulation under the Act of 1855 only allowed a space 100 feet square in regard to any building, so that this enactment of 1882 shows clearly the advancing state of public and official opinion upon the subject of open spaces. It will strike any one, however, that the provision of practically a strip of open space ten feet wide at the rear of a building, while it may be sufficient for some buildings, will be manifestly inadequate if the building is of very great height, and that any regulation in regard to open space should have some reference to the height of the building.

With reference to height the existing regulation is as follows (25 and 26 Vict. (1862) cap. 102, sec. 85) :—

"No building, except a church or chapel, shall be erected on the side of any new "street of a less width than fifty feet, which shall exceed in height the distance from "the external wall or front of such building to the opposite side of the street, without "the consent in writing of the Metropolitan Board of Works ; nor shall the height of "any building so erected be at any time subsequently increased so as to exceed such "distance without such consent ; and in determining the height of such building the "measurement shall be taken from the level of the centre of the street immediately "opposite the building up to the parapet or eaves of such building."

It would appear to have been within the minds of the authors of the above enactments as to open spaces and height of buildings, that new streets would be fifty feet wide at the most, and that an open space ten feet wide at the rear of the buildings would be a sufficient provision; also that in legislating for widths of streets and height of buildings there was not any need to consider existing streets and buildings.

Modern ideas would, however, suggest that the regulations as to height of buildings

and the open spaces in their rear should be made applicable to all thoroughfares, old and new. While it is the first duty of the State to safeguard property, there is no particular reason why a proprietor when rebuilding on his land should not, in the interests of the community, be made to forego any ancient advantages, and to conform to modern regulations as to the height of buildings.

The revised regulations might, therefore, direct that no building whatever should hereafter be erected of a greater height than the width of the street, and that every building in the rear thereof should have an open strip of land belonging to it of a minimum width equal to one fourth the height of the building. The height of the one-storey building to be allowed in this open space should also be limited, as in the case of some buildings the ground storey might be made of exceptional height, thus placing at a disadvantage the adjoining buildings. A height of twelve feet to the eaves should be the extreme limit.

By the Act of 1890, no building is to be of a greater height than ninety feet, whatever the width of the street may be; and in the suggestions of the Practice Committee, adopted by the Council, it is proposed that this maximum height should be reduced to seventy-five feet. Even this latter height might be reduced with advantage, but as it was generally assented to by the Institute it may be hoped that this maximum will become law.

Under the above proposed conditions we should find, when streets fifty feet wide run in parallel lines, and the buildings are about forty feet deep, there would be two

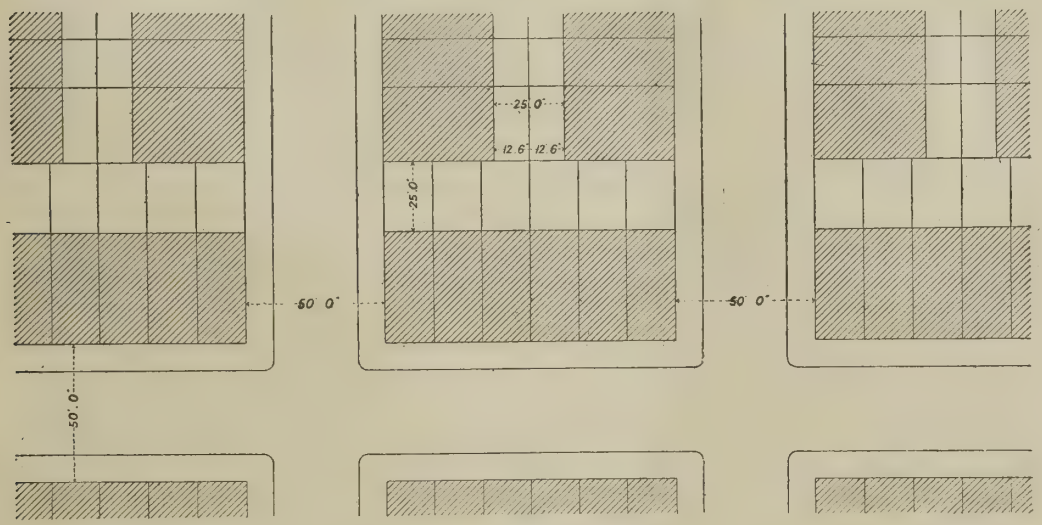

Fig. 4.

forty-feet front buildings, and two twelve-feet-six open spaces. The distance between cross streets would thus be one hundred and five feet, or one hundred and fifty-five feet centre to centre. One great blot on this arrangement, however, would be that the houses in the main thoroughfare would prevent the access of air to the space at the back of the houses on the cross streets; and on this account there should be a minimum width of twenty-five feet between the backs of the houses in the main thoroughfare and the sides of the houses in the cross streets, as shown in diagram fig. 4.

The "Model Bye-laws" of the Local Government Board aim at a better provision than this, and recommend a minimum width of twenty-five feet for all houses of a height of thirty-five feet, or any greater height; and if that could be generally adopted,

as it certainly might be in the suburbs, or in any re-arrangement of portions of a great city, the air-space around buildings would be liberally provided, especially if there were three descriptions of streets—a central avenue or boulevard, a principal thoroughfare, and a cross street, all as shown on diagram fig. 5.

It may be observed that I have shown the position proposed to be occupied by houses by straight lines. It must not, however, be supposed that I would suggest lines

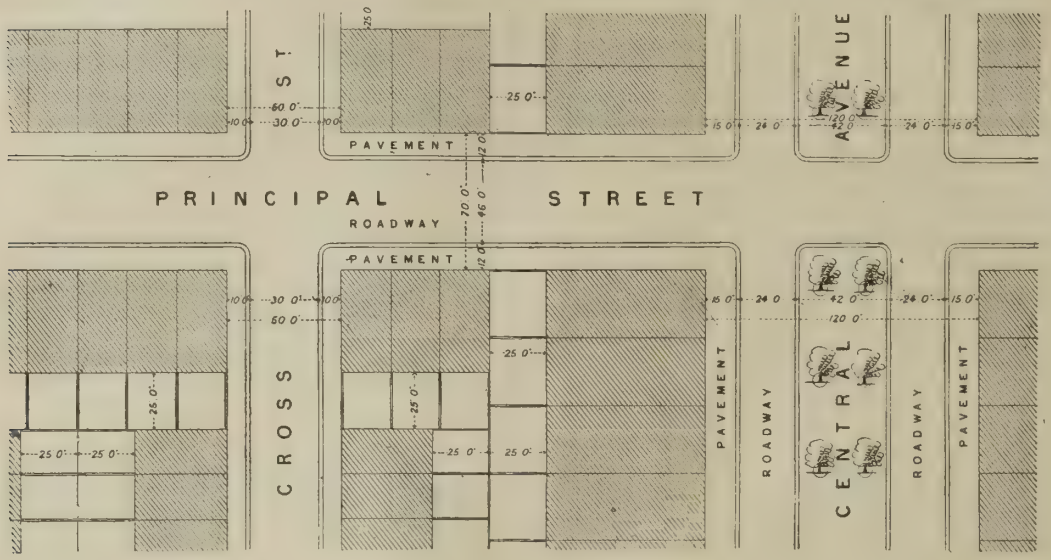

Fig. 5.

of houses with close-shaven fronts and backs, or in any way resembling "the long "unlovely street" bewailed by Tennyson in "In Memoriam." It is only suggested that within the limits shown by those straight lines the architect should exercise his art, and make as many recesses or projections as he pleases.

Street Improvements.

The regulations already referred to would seem to settle the relations between the height of buildings and the width of streets; and while the width of 40 feet would seem to be fixed as that for subordinate developments, much greater widths are contemplated when undertaking an important street improvement. In some of the thoroughfares recently constructed by the London County Council, or by the Local Vestries, the width of 70 feet has been adopted.

In the construction of such a thoroughfare it is now usual, where possible, to provide a subway about 6 feet by 12 feet, and it would be of immense advantage if a similar subway could be constructed under all our main streets and thoroughfares. The gas- and water-mains, and the electric telegraph and telephone wires, and the electric light cables, could all be advantageously placed in this subway, where all repairs or alterations could be effected without the necessity of opening or tearing up the street on each occasion, as at present, and the frightful and dangerous overhead wires could all be removed to the subway. The several companies would of course have to pay a rent for the space occupied by the mains, &c., and this would practically repay the cost of making the subway.

I have been informed that the gas and water companies strenuously resist the idea of placing their mains in a subway, or paying anything to public authorities for

such accommodation, preferring rather to continue to be the nuisance they are at present to the public, in the way of breaking up roads and impeding traffic. With frequent ventilation gratings of reasonable size in the line of the crown of the subway there should not be any fear of gas explosions; while in the event of a water main bursting, the overflow would find a quick exit in the sewer beneath, instead of doing much mischief in the locality of a burst before it is discovered.

The type of construction generally adopted in the metropolis would be improved if there were a layer of asphalte on the concrete under the paving, so that all renewals of paving might be effected without breaking through the asphalte and concrete.

It is quite open to doubt whether wood pavements are unmitigated blessings. The wood being porous, and in many cases placed in position without being creosoted or otherwise protected, the fibres may become clogged with offensive matter, and long before being renewed the roadway may be viewed as a shallow cesspool.

If asphalte were less resonant, and could be applied in combination with some other impervious substance that would present a durable frictional surface, it would be impossible to conceive of a better paving material than asphalte, which merits all that was said in its favour by Mr. Nevill at the Congress.

Before leaving the question of street improvements, something may be allowed to be said upon the great desirability of getting rid of the terrible sky-signs which now disfigure London; if we could get the overhead wires and cables put into a subway, and the sky-signs removed, how we should rejoice! There might also be a law limiting the size of the lettering of the name or trade titles upon or above shop-fronts—but, as George Eliot said, it is of no use trying to make an almanac for the millennium!

Dwellings for the Labouring Classes.

Much as I may have hesitated when touching upon the previous subjects, when I approach that of "Dwellings for the Labouring Classes" I know that here indeed is debatable ground. How much literature already exists upon this subject, and how everything is squared to suit the views of the exponent, is known to most of us. To inflict upon you stale truisms would be the safer course, but perhaps not the most acceptable.

As I have said before, I do not believe in the wisdom of separating the classes; if any such scheme were practically carried out, and were successful, it would be found to increase the loss of touch with each other, and to accentuate the tendency to antagonism between the rich and the poor. Therefore, though the pictures presented to us of happy villages for the working man, with churches, institutes, libraries, gymnasiums, and every possible want supplied, may be very seductive, it is possible for some cynics to look upon them as not altogether satisfactory solutions of the problem. Equally unnatural is the idea of housing our poorer brethren in huge monotonous buildings, so constructed that, in the event of misfortune overtaking any of the industrious inmates, the transition from the home to the workhouse shall be less apparent and less felt. That is indeed a cruel mercy.

Figures will prove most things, and one thing that was proved conclusively at the late Congress, and by incontestable equations, was that London, so far from being overcrowded, did not accommodate one-eighth of the number of people that was possible in a similar area. We were instructed that within one acre it was possible to provide, in block dwellings, about 800,000 cubic feet of dwelling accommodation, and with due regard to health provisions. Now, if we allow 2,000 cubic feet of dwelling space to each individual—and this is probably a much larger allowance than is enjoyed by the average of Her Majesty's subjects—it is clear that there would be about 400 people enclosed in each acre. I do not know what another gentleman will have to say to this, who in 1881 was lamenting that the increase of population had proceeded to such an extent that there were then 50·8 persons per acre. Personally, I congratulate myself

that, being obliged to live in London, I have only one-eighth of my proper number of companions.* If the erection of lofty blocks is at all likely to bring us to the theoretical limits of density of population, that of itself ought to be a sufficient reason for discontinuing the evil.

Architects may be asked to so exercise their art that it shall produce a beneficial influence upon those for whom their works are intended, and among this number they will include possible tenants as well as immediate clients, and in the erection of buildings of less height a greater individuality and picturesqueness might possibly be given them. A subordinate street in a city might just as well be sightly and interesting, as ugly and repulsive. It is very difficult, however, to attain this, as the architect is the last person whom the enterprising builder cares to consult, and up till now the erection of tenements for the humbler classes has been left to the latter individual, who, when he has worked out one plan tolerably satisfactory to himself, is content to cease all effort at planning, and devotes his life to the monotonous repetition of one plan as cheaply and as mechanically as possible. Any hope of a change must come from the superior landlord himself directing the provision of the dwelling accommodation, instead of cutting up his land for so many ground-rents, and looking on unconcerned at what else may transpire.

In the provision of superior accommodation exception may be taken to the first cost and subsequent maintenance; and it is quite true that small tenements, each with their own roof, staircase, and drainage, may be expensive as compared with blocks in which a tenement is amply provided when it has only a sixth of each of these necessities; but there may be advantages that counterbalance that of economy, and for which perhaps even the market rate may be higher. It might also be as well if we were less insular, and were to make ourselves better acquainted with what has been and is being done as to domestic dwellings in some of the larger Continental cities.

A great difficulty in any city is to provide not only light and air, but the possibility of sunshine to the inhabitants of small tenements, and the provision of this should be one of the considerations when planning or laying out buildings of this description. The aspect even of St. Giles's on a sunshiny day is very different from that of the same neighbourhood on a dark, dull, damp one. Doctors will also tell you of the good effect of a few hours' sunshine upon patients under their care, and those who plan buildings that do not admit more or less of sunshine to the rooms are responsible for depriving the occupiers of one of their first rights.

I do not propose that the rooms should have very large windows, making them too hot in summer and too cold in winter, but that in designing the buildings every advantage should be utilised in order that the aspect and direction of the rooms and apertures shall be such as to admit sunlight and sunshine whenever the rays from the sun are able to pierce our murky atmosphere. There is an Italian proverb to the effect that where the Sun does not enter, there the Doctor will.

It is possible that in designing dwellings for the labouring or working classes more real genius is required to make them pretty or beautiful than is the case where the artist has to deal with superior residences or mansions, where the expenditure is less restricted. In the former task there should be the greater credit, and also satisfaction.

Augustus Welby Pugin, among his Papers on Chancel Screens, inserted two historical sketches as shocking examples, and to enforce the views that were dear to his heart. Were it desirable, or permissible, how many instances at the present time might not be here inserted, as similar examples, to emphasise the principles which I earnestly press upon your consideration? WILLIAM C. STREET.

* The area comprised by Inner London is 77,410 acres, and the population in 1891 was 4,211,056, or 54·4 per acre.—W. C. S.

SIR WILLIAM CHAMBERS, R.A.*

CONCERNING SOME OF HIS WORKS.

Marlborough House.

One of Chambers's important letters, dated 23rd April 1771, has been already printed in the *Journal* [p. 4 *ante*], from which was learnt for the first time that he carried out Leadbeater's design for the addition of an upper storey to Marlborough House, Pall Mall. A previous letter, dated 16th November 1769, explains that the work was in progress; it is addressed to Mr. Turner, at Marlborough House.

Mr. Street informs me You Want all the bills directly. I have therefore Collected the Remainder of them which are herewith Sent. If You want my bill I will Send it in directly, if not it may Stand till Christmass.

The next letter is dated 31st August 1771, addressed to Thos. Walker, Esq., at Woodstock:—

Several of the tradesmen employ'd in Marlborough House have applied to me for Money, & I should be glad to have an Order for a thousand Pounds now in order to supply their present wants. We go on very slowly w^th^ the works owing to the negligence of the Bricklayer, who has always been backward, else the whole would have been covered in long ago. I have said ev'ry thing I could to Him but to no purpose, should therefore be obliged to you if you would write to Him. One side of the House is now covered in, and we shall begin upon the park front, which I hope to have covered in about a Week's time, & if the Bricklayer could be got on I think the whole might be compleatly covered in about a fortnight.

This letter was followed by two others dated July 27th and 30th, 1772, asking "Mr. Turner" to send him money.

Mr. Street and Mr. Mail have both of them applyed to me for Mony on farther Account of the Works at Marlborough House. I have none of his Graces in my Hands, & to say the truth, very little of my own at present, so should be glad to have some for them & some others of the Tradesmen who want it; about 800£s would do now; the works are all done and measured, but I cannot yet settle the whole of the Bills because there are disputes yet undetermined with the Bricklayer & Plumber, the last of whom has behaved very Ill indeed.

On 20th October, Chambers wrote to Mr. Thomas Walker at Woodstock, that he required £900 more. In a letter 3rd February 1774 to the Duke at Blenheim, Chambers reports—"The "dining room at Marlborough House has been "finished some days and I hope most of the smell "will be gone before your Grace arrives in Town."

Blenheim.

Writing to Mr. H. Turner at Blenheim, 28th December 1769, Chambers says—"I think it will "be best to use the old stone for the Gate if it "will do, as it will save his Grace a Considerable "expence, and should like it (to) be much Harder "than the Heddington Stone. I apprehend Some "allowance must be made in the extra labour in "working it." On February 3rd, 1774, he wrote to the Duke that as the ground was covered with snow and he had "an ugly cold for some days" he could be of no use at Blenheim, and hoped in the spring would answer; and adds—

I think the Fountain* must be repaired on the Spot where it is to be erected & built up as fast as it is repaired, else it will be very liable to accidents in its Removal from one place to another; this may be begun in the Spring, & as no very great nicety will be necessary in the repair it will soon be done. . . .

On 11th March 1774 he wrote to Thomas Walker at Marlborough House:—"Herewith I "send the Plans of the Groves w^th^ what further "remarks we made when down there the other "day w^h^ w^th^ those His Grace had before will serve "to give a very good Idea of the Place."

The following letter is from the Duke of Marlborough to the architect in respect of a new villa:—

Brighthelmstone, June 20th, 1774.

Sir,—I am obliged to you for your letter which I have just received. I am affraid the place you mention is too far from town, as I imagine it may be 8 miles besides the Disagreable circumstances of being obliged to pass through Brentford. I should not chuse to have a Villa more than six miles from Town, & as I cannot have Chiswick, I think I shall like to build a Villa if I can find a pretty spott of Ground with a few old Trees and a Dry situation. I should be glad if you would go & look at a place at Rowhampton which I have the offer of: it is near Lord Bessboroughs and belongs to Mr. Bouverie; perhaps you know it. I can have it, I believe, for less than five thousand pounds, which I believe is not Dear; the house would not do at all, but as there is ground belonging to it, I should like to build a New house in some other part of the ground, if a pretty spot can be found on it, which is what I want you to see it for; the materials of the present house would be of use in building a New one. I dont want it very large; a good Drawing room, a good Dining room, a few good bed-chambers, not a great quantity of stabling. I hate a brick house, but I think it may be whitened to look like stone, and there must be a stone staircase. I should think I might build a Villa of this sort for £6,000, especially if the old house affords any materials; if there is no pretty spott for a house at this place of Mr. Bouverie's I must look out for some other. I think I had rather build than buy a Villa ready built, as I shall enjoy the building and making a place very much; but if I do build, it certainly shall be on a Dry healthy spot. I dont mean that you should make a plan upon what I have said, but I wish you would send me a little thing scratched out upon a bit of paper, with the Sum or nearly the sum it will cost. I should likewise wish to know, when

* This is an appendix to articles and extracts of correspondence under the same heading in Vol. VIII. p. 371 and concluded p. 393. See also "Practice in "the last Century," p. 3 *ante*. It may be necessary to remind the reader that Sir William was in the habit of copying the letters received from his correspondents as well as his own replies. The absence of capitals and the peculiar spelling in both series are possibly due to the haste of Sir William in copying.—W. P.

* This is the last work of Bernini, and a copy from the magnificent fountain in the Piazza Navona at Rome, and was a present from the Spanish ambassador at the Papal Court to the first Duke of Marlborough. It had long lain neglected, and been much damaged.—W. P.

the house may be lived in, if it is begun next Spring: we mean to have it finished quite plain; but I should wish to have it all in taste.

DESIGNS FOR MARYLEBONE CHURCH.

To the Revd & Honble Mr. A. D. Harley.

Feb. 16, 1774.

SIR,—I am sorry to find by the Discourse we had yesterday in the street, that the Gentlemen of the Vestry purpose making me so triffling an offer for all the trouble wh they have given me wh regard to the intended Church & some other works wh have been executed under my direction. I will not suppose there is any intention to affront me by offering what I cannot with Decency accept of, & must therefore conclude either that the Gentlemen have forgot what has been done or are no Judges of its value, in either of wh cases it is necessary to set them right. I cannot do this myself for Reasons very obvious, but must necessarily be troublesome to some friend. Would you, Dr Sr, who have so kindly assisted me on many other occasions be so obliging to take this matter in hand, & when you have a proper opportunity represent to the Gentlemen the following Circumstances.—I was appointed by the Vestry, I believe, upwards of two years ago, their Architect, & it was then agreed that I should, as usual, be allowed 5 p Cent upon the works executed in Consequence of this appointment. I have by the Directions of the Vestry attended the Execution of the Vaults & burial Grounds, & also the Court house, having made or examined the Estimates, settled the Bills, measured the works, & inspected into the Construction & finishing of the whole by a regular & due attendance either by myself, my Assistants, or Clerks, as the nature of the works required. I am consequently entitled to 5 p cent upon the amount of the Bills for these two works, wh to the best of my recollection amount to about £3500, & 5 pr cent thereon is 175£'s. For the Church I have made no less than 6 different Designs, all of them large & complicated, consequently very Difficult to contrive & tedious to execute. I will not trouble you wth a Bushell of Sketches & Calculations wh were made previous to the Designs, but I have sent you the finished Drawings to show by wh those who understand such works will judge of the rest. I have beside made 3 Different Estimates, one of wh is sent for the Gentlemen's inspection; it fills 3 Sheets of paper, & those who understand it know how laborious & tedious such Calculations are, in short, Dr Sr, Upon the nearest Calculation I can make I am upwards of two hundred pounds out of Pocket by these works in wages to Clerks, measurers Bills, allowance to Assistants, &c., &c., & there is no Architect of reputation, I am persuaded, who would do the Designs, &c., &c., wh I have done for the Church for less than 3 hundred Guineas besides the sum Due to me on the other works. A vast deal of my own time has been employed in these works, particularly in the Contrivance of the Designs, besides the wages, &c., wh I have paid to others. I do not, however, mean to insist upon a generous, or even a just requital for my Trouble & Expences. I am too well acquainted with the temper of the publick Bodys. If I am treated wh tolerable Kindness; 'tis all I expect, & I shall be ready to submit to any terms my friends shall judge reasonable.—I am, &c., &c., W. C.

Chambers had to write again in September 1774 demanding payment, hinting at "legal pro-" cedure to secure the demand, which, as your " Lordship knows, would be of no positive value " after the expiration of the six years. I have no " doubt of your Lordships honour: but if you " should die, there is no knowing what advantages " Executors might take.—I have, &c., &c." On April 24, 1775, he recapitulates his "demand on " the Parish of Marybone . . . I shall be ready " to make every reasonable concession, provided " the Committee comes to a speedy determina-" tion: for, in a fluctuating body like ours, a " business of five or six years' standing cannot " admit of farther delay." What became of this troublesome business the books do not show. The Court-house, I presume, is the one still existing in Marylebone Lane, near Oxford Street, the designer of which was unknown, on inquiry at the offices, a few years since.

SOME BUSINESS CORRESPONDENCE.

THE DUCHESS OF QUEENSBURY.

The following from the Duchess of Queensbury is most interesting:—

Ambersbury, November 23rd, 1772.

Sir William Chambers will remember most of the discourse (tho in great haste) held between him and the Dutchess of Queensbury relative to the by name Chinese house, she now puts him in mind that *Oake* leaves & Acorns were proposed instead of the Old Eggs & Anchors; she imagines Sir William will take care of the proportions, as the acorn ought just to be large enough to be seen plainly, & not big enough to disgust one, she thinks they should be painted the colour of an Acorn, & the cup a little carved, & the *Oake* leaves double or *trible* in every corner, enough to appear natural as if just gathered. Besides all the above and whatever else Sr Wm wrote down, he will remember the Dutchess told him of some things she had seen *att* Lord Radnors, by Salisbury, worth his looking *att* when it may suit, she mentioned to Sr Wm that she thought he might adapt something of that nature towards the *embelishing & Elegantifiing* the house in question. She can now acquaint him of the name and place of abode of that *Artice* sent from abroad by the Dutchess of Norfolke. His name is de Bruyn, his dwelling place little Castle Street, Cavendish Square. Being near Sr William he will easily & soon judge by what he will shew and explain having done for Lord Radnor from Designs of Montfaucon, whether or not any such will answer well for the Chinese house. I am myself uncertain; however, Sure that if not eminently well, better not venture it at all—what I saw was in two or three colours of this mans doing, but there was a *parcell* of *Couleurs* added by a painter towards the rough finishing shocking to behold, as *intollerably* tawdry. Sr Wm knows that the assemblage and blending of *Couleurs* are great *Principals* of his own *Masterfull Supream* taste. the Dutchess would have nothing done in black & White, but glowing & soft, not excluding the requisite light and shade.*

SIR JOSHUA REYNOLDS.

Sir Joshua employed Chambers. The following letter exhibits that architect's care and attention to small details. Perhaps the house referred to was at Richmond, as named in the subsequent letter:—

* The underlining in the original is represented by italics.—W. P.

To Mr. Bell. October 14th, 1771.

Sir,—As I observed a little Settlement in the two Windows under the Bow of S^r^ Joshua Reynolds's house, I would have you put the sash frames immediately, then shore up the wall and bow, take out the brick arches of the Windows and put in hard stone ones, each composed of three stones with very close joints, and the Arch about 18 In deep and as thick as the other part of the reveal of the Windows; which done I think the whole will be effectually secured; all this must be done directly. I cannot think of Letting the plaisterers make up their Stuff in any part of the house, as eaven the Kitchen must be fitted up Immediately, they must therefore do it in the Vaults, which may be paved with flat brick paving of very hard Brentford Stocks immediately. In the two large rooms bring out the Bracketting at the ends in a line with the projections of the Chimneys, as I would have no breaks in the Ceiling, and do the same in the room towards the Garden next the Kitchen, as I mean to have Cupboards on each side the Chimney, in other particulars follow the Directions already given. You may use the bracketting taken down in the little room on the parlour floor in this room. and instead of the Cornice first intended for it, use the Cornice intended for the little room.

Then follow two letters of 20th November 1771, and after 18th April 1772, to Mr. Bell, carpenter at Richmond, urging on the completion of the works; and this correspondence concludes with an explanatory letter to Sir Joshua of the way in which the estimate was so largely exceeded. Was this a case of "Save me from my friends"?

To S^r^ Joshua Reynolds. October 15, 1772.

D^r^ Sir,—I herew^th^ send you your Bills for the House at Richmond, which you will find exceed what you proposed to lay out there, chiefly owing to the changes that have from time to time been made in the 1^st^ Design. You may remember that your 1^st^ Intention was only to have one large room, which was to be on the Parlour Floor, & only to have atticks over It. You then desired to have the large room up stairs & an eating Room upon the Parlour floor, &c.: this was done, and attended with some additional Expence when finished. However, your friends thought there was not Elbow Room enough, so a good part of what was done was demolished, & a large eating room w^th^ a Bow Brobe [*qy.* brought] out, was made at a considerable expence. Your little Garden, w^th^ the Pales that enclose it, has likewise cost Something, & as the Ground was all a very stiff Clay the digging part of which there is a good deal exceeded what I expected, & I was under a necessity of making a new Sewer of a considerable Length to take off the water, as the one w^h^ runs by your Building was not deep enough to drain it.

	£	*s.*	*d.*
Aff the Bills, including my own amount to the sum of . . .	1655	1	4½
You have already paid at diff^t^ times	940	0	0
Ballance due .	715	1	4½

You will find by the Bills sent you that amongst them there are Bills paid to the amount of £911 6*s.* 9½*d.*, the rest is due, & as some of the Tradesmen are necessitous, I believe, whenever it is Convenient to you it will be very agreeable to them to receive their mony. As I have never examined Coleman's House I cannot tell whether it be Cheap or dear at a 1,000£s. But since you spoke to me I made some enquiry about it, & was told that the man Who undertook to build it lost 500£s by the Bargain, & that it is besides as ill built a house as can be; whether all this be true or not I cannot tell, but you may be assured that your own house is worth all the mony it has cost you, & I do not doubt but you might meet w^th^ a Chapman for it any Day you pleased.—I am, D^r^ S^r^, &c., &c. N.B. the painting is charged as finished, which it is to be whenever you find it Convenient. In the meantime do not pay the painter above ½ his Charge.

SOME PRIVATE CORRESPONDENCE.

Amongst his many correspondents whose letters are necessarily omitted, were "M. de la Ro-"chette"; "Senator Scheffer at Stockholm"; "David Sandberg, Swedish India Company at "Gothenburg"; Devaillie (De Wailly), archt. du roi, at Versailles; his brother John Chambers, from Bordeaux, 1774; Mme. la Comtesse de Boufflers; M. de Roi, architecte du Roi au Louvre; M. de Voyer d'Argenson, à Paris; M. Basan, à Paris; Mme. la Comtesse de Tessé (née Noailles); Roslin, peintre du Roi de France et chevalier de l'ordre de Vasa, à Paris; G. F. Blondel; M. Boutins, fermier général; Fred. Chapman, builder to the King of Sweden; his brother, Martin Törngreen, at Gothenburg; M. Godfrey de Villeneuve, à Paris; M. Doyen, peintre du Roy, à Paris, and others.

The following letters are of a private character. In one of the first, dated 4th July 1772, Sir William states that "the receipts of the Exhibition" (of the Royal Academy) "this year, notwithstanding "the badness of the weather and the loss of a day, "amounted to £976 7*s.* 0*d.*" Others following will be read with much interest.

Oliver Goldsmith.

My dear Sir (undated),—This is the first time I had one moment to Spare to sit down and thank you for your kind Sollicitude for the fate of my play, which has turned out beyond my expectation. When will your book come out? you have read, no doubt, a poem with some share of humour supposed to be written by Mr. Ansty against you. Whoever the Author is, he is, I perceive, a Steady Brownist; no matter, it will all in the end contribute to do you honour. Most of the Companies that I now go into divide themselves into two parties, the Chamberists and ye Brownists, but depend upon it you'l in the end have the Victory, because you have truth and Nature on your side. Mr. Burke was advising me about four days ago to draw my pen in a poem in defence of your System, and sincerely I am very much warm'd in the Cause. If I write it I will print my name to it boldly. I wonder you have not excited much more envy than you do.—I am, Dear Sir, Your Sincere friend & Admirer, Oliver Goldsmith.

P.S.—If Lady Chambers and the ladys desire to see my play * I beg they may send to me.

Mr. Burke, You may say upon my Authority, as also on that of S^r^ Joshua Reynolds, is a profest Chamberist. He always speaks of your System with respect.—I am, Dear Sir, Yours Affectionately,

Oliver Goldsmith.

* Probably that of *She Stoops to Conquer; or, The Mistakes of a Night*, first printed in 1772.—W. P.

VOLTAIRE.

To Mons^r de Voltaire, July 3, 1772.

SIR,—I take the liberty of sending you a little book lately published by me; it contains, besides a great deal of nonsence, two very pretty prints engraved by the Celebrated Bartolozzi; which prints and the View with which the book was published are its only recommendation. The taste of Gardening, as it seems to me, is very indifferent all over Europe: a wish to See it mendid has induced me to throw out a few hints upon that subject, hopeful that they might excite others to labour in the Same field; so ample, so rich, and so well deserving the Attention of Genius. 'Tis much to be regreted that Monsieur de Voltaire, amidst the great variety of Subjects he has so successfully treated has never employed his thoughts upon this. Your most obedient, humble Serv^t, W. CHAMBERS.

7 *Août* 1772, *au Château de Ferney.*

MONSIEUR,—Ce n'est pas assez d'aimer les jardins ni d'en avoir; il faut des Yeux pour les regarder et des Jambes pour s'y promener. Je perds bien tôt les uns et les autres, grace à ma Vieillesse et à mes maladies, un des derniers usages de ma Vue a été de lire votre très agréable ouvrage. Je m'aperçois que j'ai suivi vos preceptes autant que mon ignorance et ma fortune me l'ont permis. J'ai de tout dans mes jardins, parterres, petite pièce d'eau; promenades regulières, bois très irreguliers, gazons, puis vignes, potagers, avec des murs de partage couverts d'arbres fruitiers, du peigne et du Sauvage; le tout en petit, et fort eloigné de votre magnificence. Un prince d'allemagne se ruineroit en voulant être votre écolier. J ai l'honneur d'être avec toute l'Estime que vous méritez, Monsieur, Votre très humble et très Obéissant Serviteur, VOLTAIRE,

Gentilhome ord. de la Chambre du Roy de France.

LORD GRANTHAM.*

Madrid, 5 July 1773.

DEAR SIR,—Having a Commission for Some books of Architecture, I cannot better apply than to you for your assistance in procuring them: the books I Want are as follows: Your treatise on Civil Architecture. The Whole Set of *Vitruvius Britanicus*. The additional Volumes for a person who has the old ones. . . . . I desire you would let me know what works you may at present be engaged in, that I may prepare myself in some future day to receive amends for the very few tolerable buildings in this place. I can assure you that tho' Madrid is a fine town, there are not three Edifices in it that deserve to Survive an Earthquake. At Toledo there are some curious & handsome buildings. The Escurial has infinite merit from its Simplicity & good mechanism. . . . The books I Send for are for Count Gazolo & Cavalier Sabatini, who married Vanvitelli's Daughter. He has much credit here, & is employed in some of the great works now carrying on, which are truly Royal, such as the approaches to the Capital, Gates, &c. I desire you to tell S^r Joshua that he owes me a letter. I hope you will excuse the trouble I give you, & I embrace with pleasure this occasion of assuring you that I am, very sincerely yours, GRANTHAM.

* The Right Hon. Thomas Robinson, Lord Grantham, of Grantham in Lincolnshire, was created Baron 7th April 1761, and was Ambassador at the Court of Spain at the time of this friendly and artistic correspondence.—W. P.

August 13*th*, 1773.

MY DEAR LORD,—Your kind letter has furnished me with an occasion long wished for, of writing to your Lordship. I am so much indebted to you for many former acts of friendship, that to be gratefull in the usual way must have produced a hundred letters at least to Madrid; but, fortunately for your Lordship, I am a sectary of the Charles Turnerian faith; and as that great apostle never prays to God for fear of being troublesom, so I never write to, nor visit my great friends through fear of being Impertinent. Last year I had prepared a copy of my little book on Gardening (then just published) for your Lordship's perusal, but the Claps and hisses were for some time so equal, that I grew ashamed of the present, and threw it by. The book having, however, in less than a year, been damned through two English editions, and applauded through one in French; and while furiously abused by some connoisseurs of the age, it has been as furiously defended by the others. I venture to send you a copy, naturally concluding that there must be some little merit in a thing which has caused such a bustle. With respect to the books you ordered, I had some difficulty in getting the three first volumes of the *Vitruvius Britanicus*, and they are, as you will find, very dear. I had the honour of seeing Count Gazzolo in England a few years ago, and the Cavallero Sabatini of your Lordship's letter is no other, I think, than my old acquaintance the Abbot of that name, who I knew intimately at Rome many years ago. My Sabatini was a Neapolitan, an Architect, eleve of Vanvitelli, and one of the Ugliest fellows in Italy—a blot in the Church which even the scarlet could never have effaced; he has done well to turn knight, his head will do service in the day of Danger. My horrid friend was however a man of parts and great ingenuity in his profession; much more so than his Master Vanvitelli, who enjoy'd more fame than he merited, being only a book Architect, unable to produce anything without the assistance of twenty folios, which always lay open before him; hence his works are disjointed partichios, made up of parts, often good in themselves, but unaptly connected, without any general determined Style, or uniform pace of Composition. I have almost finished Lord Melbourne's house in Picadilly which your Lordship recommended me to; they are pleased with what has been done, and I am much pleased with their treatment, and much obliged to you for the recommendation. Messieurs Adam have lately published a book of their ornaments,* with a preface rather presumptuous, as I am told, for I have not yet read the book, in which they boast of having first brought the true Style of Decoration into England, and that all the Architects of the present day are only servile copyers of their excellence. I do not agree with them in the first of these positions, and can produce many proofs against the last—among others, Melbourne house, decorated in a manner almost diametrically opposite to theirs; and more, as I flatter myself, in the true Style, as approaching nearer to the most approved Style of the Ancients. Pardon the length of this letter, & believe me to be most sincerely & With the Greatest respect, &c., W. C.

Madrid, 16*th Dec^r* 1773.

DEAR SIR,—I received yours so long ago as last Sept^r, and should have answered it directly if I had

* The first volume of their *Works in Architecture*, fol. 1773.—W. P.

not waited for the arrival of the Books, which a nine Weeks' Passage of the Ship delayed till about a fortnight ago. They came in very good Plight and well—for I have kept them back for my Own Amusement and Instruction, to be disposed of in a few days. I have also directed my Friend Mr Draper to remit You the Sum of £28. 6s., being the Price of them. Count Gazola is very sensible of Your attention to him in sending him your essay on Gardening, and Sabbatini will receive his on Sunday, for he dines here with a Virtuoso to look over the Book. I am much obliged to You for the Copy you sent me, and which I have read with much pleasure. I agree with you in many of your Positions, tho' I do not quite follow you in All. The supposed Attack upon Mr Brown has drawn upon You much of the Pleasantry and the Ribaldry which has been thrown out against it, besides which your appearance in the Chinese dress attracted more notice than a plainer habit would have done. . . . I cannot recollect what I may have troubled you with in my Former Letter, so am afraid of Repetition. I have since that time seen Toledo, where the Arts Flourished more than ever they did here, and there are some private houses and Hospitals which are really very fine. The Alcazar or Palace is in Ruins, but both from its form and situation is very fine. I shall have drawings of it. There are very few remains there of real Moorish Buildings; the largest of that kind exist at Granada, and I am assured that the Academy here are securing faithful Representatives of them For Posterity. I hear a very good account of Melbourne House. I shall always be happy to hear that You are concerned in great works, as I am Sure both your employers and the Public will be Satisfyed.—I am, Dr Sir, Sincerely Yours,

GRANTHAM.

London, Apl. 20th, 1774

MY DEAR LORD,—It is a long while since I received your Lordship's letter of last december, but like all Idle people I have a hundred excuses for not answering it sooner, some good ones, with which however I will not take up your Lordship's time, as so much of it has already been employed in reading my dissertations on Gardening. It gives me great pleasure to have your Lordship's approbation of these little works upon the whole; to expect you should relish every part were unreasonable, as the daubing in many places is tawdry, not designed for nice Judges, but calculated to please *la Canaille*; a numerous body in every Country which in projects of a General nature must not be neglected. It is with pleasure I acquaint your Lordship that Melbourne house is now Inhabited. The Cattle, as horses, Grooms and Coachmen, have lived there these twelve months, the rest of the family about three, though it is little more than two years since the foundations of that large work were laid; such charms has ready money here. My Lord Melbourne has given two public morning Concerts to show his house, which meets with more general Applause than I ever expected, or could possibly have hoped for; but fashion governs all things in London; my Lord says it is fashionable to like his house, and all the world is Delighted with it because the few that give the Ton are pleased: for my own part I am upon the whole tolerably well satisfyed with the house, but much more with the Applause, as it raises the reputation of the Architect, and does credit to Your Lordship's recommendation which first threw that business into his hands. I have not at present any other very Considerable work in hand, excepting a Vast, ugly Gothick house in Dorsetshire, built on the spot where an ancient convent once stood, and erected probably with the same view that people paint Ancestors . . . Our Exhibitions here are Just opened, and that of the Royal Academy, the only one I have yet seen, shows the vast strides the Arts have made in England within these ten or twelve Years. Reynolds, Dance, Lowtherberg, Angelica, Cipriani, Hone, West and Wilson shine most among the painters: we have some good Statues and busts by Nollekens, Wilton & Bacon, and some very pretty bits of Architecture by several rising Genius's who want nothing but the mines of Peru, with some Escurials, Vaticans, domos de Milano, Towns, Villages, Country houses and Parrish Churches to set them a going; at present they have little or no encouragement, we are overstock'd with Artists of all sorts, and it will soon be as necessary to have an Hospital for the Support of decayed Vertuosi as it was a few years ago to establish an Academy to raise them. I am much oblieged to your Lordship for the accounts you give me of Spain, and when the prints of the morish buildings at Granada come out, I shall wish very much to have a Copy sent me for my own use, with another for the Royal Academy. I am glad the Books arrived safe at Madrid; the price I mentioned in my former letter was £28. 6s., but I have since had Davis's bill, who Charges a guinea more for the *Vitruvius Brittanicus*, so that the Amount is £29. 7s., which Mr Draper may remit me when it is Convenient, as I have paid davis several months ago. Whatever Commands Your Lordship is pleased to honor me with here, I shall execute with great pleasure, being very truly, Your oblieged & faithfull humble Servant, W. C.

BUILDING MATERIALS.

MRS. COADE AND THE HON. H. WALPOLE.

*To Mrs. Coade, Artificial Stone Maker.**

MADAM,—Mr. Walpole insists upon your chusing a person to meet me in order to settle the dispute between you. Appoint therefore whoever you think proper, & I will meet them at your house any Evening about 5 the beginning of next week.

May 26th, 1772. I am, &c., &c., W. C.

To the Hon^ble Mr. H. Walpole. June 8th, 1772.

SIR,—I spent a good part of the afternoon last friday at the stone Manufactory in examining Mrs. Coade's Claim upon you for the piers at Strawberry hill. I saw the Model, & she produced a Letter from the Maker, Who I know and believe to be a man of Character, by which it appeared as nearly as she could collect the time, &c., from his Books it had cost £25, but as neither Mr. Whatley, her friend, nor I thought it worth any such sum, we put it down at 16£, which we thought the full value of It, and supposed that the remainder of the time, &c., might have been employed on other things and charged by mistake to this article or in making alterations of which we could take no account. We then saw the Moulds, which are very formidable things and we believed not over charged in the acct. any more than the quantity of the Composition used, of the price we are no judges, but suppose from the nature of the materials of which it is composed and the method of pre-

* She had succeeded her father at the celebrated factory at Lambeth.—W. P.

paring it that it must be worth as much as plaister, she has charged something less for it. We then saw an account of the Expences of burning a kiln of goods as they call it, & it amounted to 5 Guineas according to her Book, but as there were some articles that we thought over rated we reduced it to 4 Guineas, & upon inspection of the Kiln, or rather oven, we believed that the piers could not be burnt in less than 4 times fireing. The wages for Modeling ornaments, Moulding and repairing seem'd to us both incredible, but she produced a Book wherein a regular account of time was kept which had all the marks of authenticity from which we collected. I think 52£ of the sum charged, the remainder was for work done before the Commencement of the Book for which there appeared no proofs, but we examined one of the Men who had been employed, and he said he began to work at the piers as soon as he came into the Manufactory, which was two months we found before the book was begun. We then examined some of the manufacture Just taken out of the Moulds & Compared it with what was finished, and saw the Method and difficulty of repairing it, which convinced us that the reparation was a very Tedious and expensive Work, much more so than could be Imagined by any who have not seen it done. To Conclude, we were mutually of Opinion that the piers had Cost Mrs. Coade upwards of 150£, exclusive of profit, &c., as You will see by the enclosed State of the Account, but as she had offered to accept of 100£ rather than incurr Your displeasure, we both of us declined fixing any Sum and advised her to Leave it entirely to Your Goodness to settle it as You should Judge reasonable. With regard to the repair she is willing to put up the one pinacle that is wanting and the 8 flowers without any expence to you, but if more should be wanting She hopes You will Consider it. —I am, &c., W. C.

£	s.	d.	Mrs. Coade's charge.	£	s.	d.
25	0	0	Model, &c.	16	0	0
10	0	0	30£ plaister . . .	10	0	0
5	5	0	Moulds Cases Oyle and Lard	5	5	0
21	0	0	3½ Ton Composition . .	21	0	0
21	0	0	4 Kilns Burning . . .	16	16	0
64	6	4	Wages	64	6	4
5	15	6	Putting up the piers . .	5	15	6
23	6	0	Pincot's Attendance . .	12	12	0
175	12	10		151	14	10

Upon Examination of the Books, models, Casts, Moulds, &c., and upon Questioning the Men of the Manufactory and inspecting into the nature of the work, we are of Opinion that the Piers made and Erected at Twickenham for the Hon^le^ M^r^ Walpole Cost M^rs^ Coade the sum of £151. 14*s.* 10*d.* exclusive of Profit, house hire, & some other Trifling Articles. (Signed) Wm. Chambers ; Kemble Whatley.

Scagliola.

To M^r^ W^m^ Key, Master Builder at Edinburgh.
London, October 13, 1773.

Sir,—The talk your Proprietor mentions is probably the Scaglola, w^h^ is an imitation of Marble composed of talk, ising Glass, and mineral Colours of different Sorts; it is when well done nearly as hard as marble & as beautifull in ev'ry respect, the Price is from five or six to 12 Shill : P^r^ foot superficial, & the best makers of It in England are Messrs. Ritter and Bartoli, Newport Street, near Newport market, London, who imitate almost any Sort of marble You please and also make very beautifull Ornaments of It. You find it is not cheap, and as marble would be a very improper lining for a room at Edinburgh, so its imitation cannot be very proper. I hope you go on well. I wish you success, & am, S^r^, Your most obedient, &c., &c., W. C.

Slating and Cement.

To The Earl of Charlemont. August 3^rd^, 1775.

My dear Lord, . . . M^r^ Veseys new method of Slating I am a stranger to, but the Stucco of which the Adams have purchased the Secret and Patent seems to promise well. There is likewise another Composition made by one Loriol [Loriot] of which an account is given in print both in French and English, and if the experiments there recited be true, it must prove a usefull invention, but time is necessary to ascertain the real value of all these new contrivances; little faith is due to their contrivers, who, some from interest and others from enthusiasm, ascribe many Virtues to them all, and not one imperfection; they are at best but poor substitutes for Stone or marble, & shall therefore have no encouragement from me til I am perfectly satisfied of their merits. . . . Building flourishes here as usual, and Several new works are now in agitation, some of them Such as do not Occur above once in five Centurys, and their builders are such as are never mentioned above once in an Age. . . . I have the honour to be, with great respect, my Dear Lord, &c., &c., W. C.

Ground Rents.

To The Rt. hon^l^ Earl Fitzwilliam.
Berners Street (between 2 & 19 Feb. 1770).

M^r^ Chambers presents his Most humble respects to Lord Fitzwilliams And Acquaints his Lordship that the ground rent of M^r^ Adam's house near Cavendish Sq^r^ is 78 Pounds a Year, & the purchase money from 12 to 14,000£ according as it is more or less richly finished; the lease 99 Years, Commencing 1768. The Ground Next Lord Robert Berties is 100 foot in front & 70 f^t^ deep, the lease about 85 Years to come, the Ground Rent 13*s.* 6*d.* p f^t^, that is for the whole 67. 10 P^r^ Annum. M^r^ Chambers thinks he could Contrive a Very good house & offices upon the ground if his Lordship Chose to take it. Lord Milton & M^r^ Mercer Expects there Answer about there ground. M^r^ Chambers hopes to have his Lordships final determination as soon as is Convenient.

This professional correspondence is now brought to a close; it will be long before a similar interesting series of letters will be found. The profession is much indebted to Mr. A. Harry Heron for allowing the use of these MS. books for the purposes of this Journal.—Wyatt Papworth.

The late Mrs. G. Basevi.—The death is announced, on the 4th instant, of Mrs. Frances Agnata, widow of the late George Basevi, architect, the maternal uncle of Lord Beaconsfield, at the age of 83. George Basevi lost his life by a fall from a scaffold while examining the roof of the western bell-tower of Ely Cathedral on 16th October 1845. Mrs. Basevi had thus survived her husband—who was the architect of Fitzwilliam Museum, Cambridge, and (in conjunction with the late Sydney Smirke, R.A.) of the Conservative Club House, St. James's Street—very nearly half a century.—John Hebb.

LEGAL & PARLIAMENTARY NOTES.

Rights of Light as against the Crown and its Lessees.

WHEATON *v.* MAPLE & Co.

In the Journal for 9th April 1891 the case of Perry *v.* Eames was fully reported (extracted from *The Times*), and there the very important issue was raised as to whether a servitude of light can be gained under the Prescription Act, 1832 (2 & 3 Will. IV. c. 71), as against public government buildings held by the Crown, or by nominees in trust for the Crown, or, in other words, whether the Crown is bound by the Prescription Act in respect of rights of light. In that case judgment was adverse to the plaintiffs.

Wheaton *v.* Maple somewhat differs from Perry *v.* Eames, which concerned buildings erected on the site of the old Bankruptcy Court in Basinghall Street, and so far related to what may be termed a public building. In the present case Messrs. Maple & Co. have recently erected a large block of stables and warehouses at the rear of some houses in Osnaburgh Street, Regent's Park, and Diana Place, Euston Road, Mr. Wheaton, the plaintiff, being the freeholder of the premises in Diana Place whose light was, it was argued, affected by Messrs. Maple's new premises. Negotiations for an amicable settlement of the matter having fallen through, an action was commenced by Mr. Wheaton which was tried before Mr. Justice Kekewich, who decided in his favour, on the ground that, although he had not acquired any easement as against the Crown (the freeholder), he had as against the Crown lessees (Messrs. Maple), for the residue of the term of the old lease surrendered by Messrs. Maple, which would not have expired until 1914 had they not so surrendered it.

From this decision Messrs. Maple appealed, and, as it will be seen, with success, the judgment of the Court having, so far, decided a point of the very greatest importance to the Crown and its lessees, as, at present, the Crown and its lessees have the right to erect any building to any height they desire, although such building may affect the light of surrounding premises, subject only to the recent Act obtained by the London County Council limiting the height of buildings in London.

The material sections of the Prescription Act (2 & 3 Will. IV. c. 71), and Lord Justice Lindley's judgment which follows, are taken from *The Times* of the 4th ult.

Section 2: "No claim which may be lawfully made "at the common law, by custom, prescription, or grant, "to any way or other easement, or to any watercourse, "or to the use of any water, to be enjoyed, or derived "upon, over, or from any land or water of our said "lord the King, his heirs or successors, . . . when "such way or other matters as herein last before "mentioned shall have been actually enjoyed by any "person claiming right thereto without interruption "for the full period of twenty years, shall be defeated "or destroyed by showing only that such way or other "matter was first enjoyed at any time prior to such "period of twenty years, but nevertheless such claim "may be defeated in any other way by which the "same is now liable to be defeated; and where such "way or other matter as herein last before mentioned "shall have been so enjoyed as aforesaid for the full "period of forty years, the right thereto shall be "deemed absolute and indefeasible, unless it shall "appear that the same was enjoyed by some consent "or agreement expressly given or made for that pur-"pose by deed or writing." By section 3, "When "the access and use of light to and for any dwelling-"house, workshop, or other building shall have been "actually enjoyed therewith for the full period of twenty "years without interruption, the right thereto shall be "deemed absolute and indefeasible, any local usage or "custom to the contrary notwithstanding, unless it "shall appear that the same was enjoyed by some "consent or agreement expressly made or given for "that purpose by deed or writing."

LORD JUSTICE LINDLEY.—The question raised by this appeal is whether the plaintiff is entitled to an easement of light over the land of the defendants. The material facts are:—The defendants' land is Crown property. In 1826 a lease of it was granted by the Crown for 99 years from 1815. This lease, if not previously determined, would expire in 1914. In 1891 this lease became vested in the defendants. On September 5, 1892, they surrendered it to the Crown, and the Crown agreed to grant them a new lease of the same land on certain terms; and the defendants agreed to erect a new building on the land. By this agreement the defendants are to be responsible for, and are to make compensation for, all damage which may be done with respect to (*inter alia*) all rights of air and light which any person may have over the land. Under this agreement the defendants are erecting the building of which the plaintiff complains. The plaintiff is the owner in fee of land adjoining the defendants' land. The plaintiff acquired his title in July 1852, and he then built the house which he now seeks to protect. He and his tenants have enjoyed access of light to that house for more than forty years without interruption. The light so enjoyed will be interfered with by the defendants' new building. The plaintiff issued his writ in this action in March 1893—*i.e.* more than forty years after the commencement of his enjoyment, but within three years after the termination of the Crown lease of 1826 by the surrender above mentioned. The plaintiff's contention is (1) that Section 3 of the Prescription Act (2 & 3 Will. IV., c. 71) applies to the Crown; (2) that, if not, it applies to the Crown's lessees, who have allowed access of light to be enjoyed over their property for twenty years without interruption; (3) that, if the plaintiff has not acquired a title by section 3, he has acquired such title by forty years' enjoyment under section 2 of the Act; (4) that at all events a lost grant ought to be presumed in his favour, or immemorial enjoyment ought to be inferred.

. . . Before considering the effect of the statute 2 & 3 Will. IV., c. 71, it is desirable to dispose of the points relied on by the plaintiff apart from that Act. A grant from the Crown as distinguished from its tenant cannot be presumed, for there has been no enjoyment against the Crown itself; and without it there is no foundation for such a presumption. A title by immemorial prescription is excluded by the known history of the plaintiff's house, which was built in 1852 during the pendency of the Crown lease. The Crown lessee might no doubt have granted to the plaintiff, his executors, administrators, and assigns, an easement over the land held under the Crown for the residue of the term created in 1826; such an easement, if so created, would bind the lessee for the residue of the term thereby created; nor could the lessee, or any one claiming under him, defeat the easement so created

by surrendering the term. The lessee could only surrender such interest as he had at the time of the surrender, and the surrenderee could only acquire the same interest. . . Moreover, in this respect the Crown would be in no better position than any other surrenderee. If, therefore, the plaintiff had acquired by a grant from the Crown's lessee an easement for the residue of the term granted by the lease of 1826 the surrender of that lease would not have destroyed such easement; and, notwithstanding the surrender, the easement would have continued, even as against the Crown, until 1914, when the lease would have expired by effluxion of time. But in this case there is no evidence of any grant of any easement by any lessee of the Crown; nor can I infer as a fact such a grant by any of the Crown's lessees. But then it is contended that such a grant ought to be presumed as a matter of law. But this is not so. No such grant is required to account for the state of things which exists, nor is any fiction or presumption necessary to render legal conduct of the plaintiff which would have been illegal without it. The plaintiff has simply been enjoying his own property, as he was perfectly entitled to do; and no presumption of any grant entitling him to that enjoyment in the past, or to similar enjoyment in future, can properly be made. It is true that it has been said that, after an uninterrupted enjoyment of light for twenty years, a covenant not to interrupt will be presumed. . . . But I am not aware of any authority for presuming as a matter of law a lost grant by a lessee for years in the case of ordinary easements, or a lost covenant by such a person not to interrupt in the case of light, and I am certainly not prepared to introduce another fiction to support a claim to a novel prescriptive right. The whole theory of prescription at common law is against presuming any grant or covenant not to interrupt by or with any one, except an owner in fee. A right claimed by prescription must be claimed as appendant or appurtenant to land, and not as annexed to it for a term of years. Although, therefore, a grant by a lessee of the Crown, commensurate with his lease, might be inferred as a fact, if there was evidence to justify the inference, there is no legal presumption, as distinguished from an inference in fact, in favour of such a grant. . . . The plaintiff's right to the easement claimed is thus reduced to the statute 2 & 3 Will. IV., c. 71. The section specially applicable to light is section 3, which excludes all fictions and presumptions of law and is a clear and simple enactment. Two questions arise upon this section in the present case, viz.:—(1) Does it bind the Crown? (2) Does it confer a temporary right against a lessee of the Crown, although not as against the Crown itself as reversioner? In "Perry "*v.* Eames" (1891, 1 Ch. 658) it was decided that, although parts of the statute—viz., sections 1 and 2—bind the Crown, yet section 3 does not; the reason being that the Crown is expressly mentioned in sections 1 and 2, and is not mentioned in section 3. Upon reflection I am of opinion that this decision is correct. Considering the difference between enjoying light in one's own property and enjoying other easements in other people's property, and considering the great alteration made by section 3 in the law applicable to light, I cannot regard section 3 as a mere addition or proviso to or qualification of section 2. It is what it purports to be—viz., a fresh and independent enactment relating to a different kind of easement. The Legislature may well have thought right to bind the Crown when persons had been for many years actively asserting rights over its property, and may yet have purposely omitted to impose upon the Crown the obligation of not interfering with persons who never, in fact, interfered with it. The Crown is never bound by a statutory enactment, unless the intention of the Legislature to bind the Crown is clear and unmistakable, and this is by no means the case in dealing with the question of lights. I come now to the last question—viz., whether section 3 has conferred an easement as against the Crown's lessee. So far as mere language is concerned, and apart from the nature of the subject matter with which the section is dealing, I should see no difficulty in applying section 3 to all English subjects, whether lessees of the Crown or other people; I should see no difficulty in reading "absolute and indefeasible" as meaning absolute and indefeasible as against all persons to whom the section is applicable. But, if the section is so read, the consequence will necessarily be to create, by mere occupation and enjoyment, a class of easements which at common law could never have been acquired by prescription, but only by express agreement or grant. An easement for a term of years may, of course, be created by grant, but such an easement cannot be gained by prescription, and, not being capable of being so acquired, it does not fall within the scope of the statute 2 and 3 Will. IV., c. 71. The expression "absolute and indefeasible," as applied to easements of all kinds, coupled with the declared object of the Act, which is to shorten the time for prescription, shows that the easements dealt with were easements appendant or appurtenant to land, and which, when acquired, imposed a burden for ever on the servient tenement. This view of the statute was clearly expressed in "Bright *v.* Walker" (1 C. M. and R., 211). . . . That view, as I understand it, is that the Act has not created a class of easements which could not be gained by prescription at common law, or, in other words, has not created an easement for a limited time only, or available only against particular owners or occupiers of the servient tenement. Such easements can only be created since the Act as before the Act—viz., by grant or by an agreement enforceable in equity, which for most purposes is as efficacious as a deed under seal. Such a grant or agreement must, moreover, be proved as a fact and not be purely fictitious. . . . Although the expression "other easement" occurs in section 2, I concur in the view generally hitherto adopted, and judicially held to be correct, in "Perry v. Eames" (1891, 1 Ch., 658)—viz., that light is not included in section 2, but is governed entirely by section 3 and the subsequent sections which have to be read with it. I may, however, observe that if section 2 were applicable to this case section 8 would be also applicable, and that, as the three years there mentioned had not expired before the writ was issued, the plaintiff's right would not have been absolute and indefeasible even under section 2. It only remains to add that there are no circumstances in this case giving the plaintiff any equitable, as distinguished from legal rights against the defendants. For the reasons I have given I am of opinion that the plaintiff has acquired no right to light under the statute or otherwise, and that the appeal must be allowed and judgment be entered for the defendants, with costs here and below.

Lord Justice Lopes and Lord Justice A. L. Smith read judgments to the same effect.

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SESSIONAL NOTES.

The Coming Session.

The Opening Meeting of the Session 1893–94 will take place on Monday evening the 6th November, when the Presidential Address will be delivered by Mr. Macvicar Anderson. The first Sessional Paper is from the pen of Mr. Edward Falkener, on a classical subject; and it will be read on the 20th November. A month later Mr. William Simpson, R.I., will discourse on the Classical Influence in the Architecture of the Indus Region and Afghanistan, illustrated by some rare photographs. On the 29th January 1894 Professor Kerr has promised to read a Paper on House-planning for Towns, its Restrictions and Possibilities; on the 9th April Mr. Blashill will treat of "Council Chambers"; on the 28th May Mr. Tavenor Perry will give his views on the influence exercised by the Hanseatic League over the Architecture of Northern Europe; and three evenings will be devoted to subjects to be brought up by the Art, Practice, and Science Standing Committees respectively. The public presentation of Prizes will take place on the 15th January, the Election of a Royal Gold Medallist on the 12th March, and the Annual General Meeting on the 7th May 1894. The new *Kalendar* will be issued to members on the 26th prox., and the final number [21] of the current volume of this Journal, which will appear on the 19th prox., will contain the Index, with the full statistics of the Session 1892–93, and the Regulations made for the new Journal of the Institute, the first number of which will be published on the 9th November. The Library, on and after the 2nd prox., will remain open on Saturdays until 6 p.m., an extension of hours which will continue during the next six months.

Candidature as Fellow.

The modified By-laws (7, 8, & 9) regulating the nomination and election of candidates for membership of the Institute [see pp. 461–463 *ante*] having now come into force, a longer period than has hitherto been necessary must elapse between the announcement of a nomination and the Business Meeting at which the election is to take place. For instance, all candidates for election at the Business Meeting of the 4th December must have delivered their nomination papers at the office of the Institute prior to Wednesday the 18th prox. Their names, as applicants for candidature, will be published in the Supplement to the *Journal* to be issued on the 19th prox., with a notification that any objection or other communication must be sent to the Secretary of the Institute, for submission to the Council, within ten clear days from that date. Such nominations and any objections thereto will be considered by the Council on the 6th November; and if, after investiga-

tion of the claim of any applicant, the Council approve his nomination, he will be admitted to candidature and formally nominated at the General Meeting to be held the same evening, which, by the way, is the Opening Meeting of the new Session. Twenty-one days must then elapse before the candidate's name can be submitted for election by show of hands, which period, the meetings being fortnightly, will never be less than twenty-eight days, and so the Business Meeting for candidates nominated on the 6th November cannot take place until the 4th December. There is, however, under the modified By-laws, a proviso. If—not less than fourteen clear days before that Business Meeting—a requisition in writing, signed by seven or more Fellows and Associates (the majority must be Fellows), be delivered to the Secretary that the votes for the whole of the candidates, or for one or more specified candidates be taken by voting papers, then voting papers would be issued to all Fellows and Associates resident in the United Kingdom, which voting papers would have to be returned to the Secretary at latest on Thursday, 30th November, folded and inclosed in the usual voting envelope. Scrutineers would then be appointed, and, after examining and counting the votes, report to the Business Meeting of the 4th December. Every applicant desiring to be admitted a Fellow must submit for examination by the Council, as evidence of his abilities as a practising architect, working drawings, and, if practicable, photographs of his executed works, with such further evidence, if any, as the Council may require. Such drawings and photographs must be accompanied by a Declaration, signed by the applicant, that the buildings to which they relate have been designed by himself. Every applicant for the Fellowship must have attained the age of thirty years and been engaged for at least seven successive years in the practice of architecture.

The Practice Committee.

The resolution passed by the Practice Standing Committee on the retirement of Mr. Edwin T. Hall from the Honorary Secretaryship which, in conjunction with Mr. T. M. Rickman, he had held ever since the formation of the Committee in the year 1886, gives expression to sentiments shared to the full by a very large number of members of the Institute. Some idea may be formed of the intricate and complicated nature of the subjects referred to the Committee by a glance at the review of their work, session by session, in the Annual Reports of the Council; and how large a share of the labour involved must have fallen to the lot of Mr. Hall and his colleague those only acquainted with the duties attaching to such a post as that of Hon. Secretary of the Practice Committee can perhaps appreciate. Fully conscious, however, of the inconveniences which might arise by his withdrawal at this critical stage from the settlement of the "Heads "of Conditions of Contract," which have been under consideration for so long a period, Mr. Hall has placed himself unreservedly in the hands of the Committee, and expresses his willingness to act with them till the matter is brought to a successful issue. The passage in a letter written by him on his retirement to the Chairman of the Committee, in which the result of their labours during the past few years is briefly told, may here be quoted in full:—"I trust I may be permitted on retiring to say "that I think it must be a satisfaction to us all to call to mind that practically every "report from the Committee since its formation has been adopted and acted on by "the Council, and particularly that the deliberations of the Committee on proposed "legislation relating to building and cognate matters in the Metropolis have resulted "in the adoption, by the official promoters, of the bulk of our suggestions; and the "same result followed when, on the appointment of the Council, I was commissioned "to represent the Institute (to express what were the Committee's views) before the "Lords Committee on the London Council General Powers Bill, 1890. On all these "matters the Committee may fairly claim to have rendered substantial beneficial "service to the public in various ways, and to have advanced the prestige of the Royal "Institute of British Architects." How far this success is due to the unstinted

service rendered by Mr. Hall himself may be gathered from the terms of the resolution passed at the meeting at which this letter was read, and which may fitly be given here in conclusion:—"Resolved, that the Practice Standing Committee having heard with "very great regret from Mr. Hall's letter to the Chairman that he is unable to con- "tinue to undertake the duties of the Honorary Secretaryship, which he has held for "seven years, desire to put upon the Minutes a record of their sincere thanks for his "unsparing energetic attention to the very heavy work of the Committee, and of their "appreciation of his rare ability and unfailing tact and temper in the discharge of his "duties, and direct that his letter be entered on the Minutes."

Manufacture of the Old.

On the 14th inst. a short account of a certain Parish Church in Scotland, to which an august personage had, in the course of an address, referred as "the old church in which we have worshipped together for so many "years," appeared in *The Daily Graphic*; and it was illustrated by a "View of the "Old Church." On the following day a modest paragraph appeared in the same newspaper to the effect that its sketch of the "old church" in the previous day's issue should have been entitled "The new building as it will be when completed." Both the inadvertence and the correction may, perhaps, afford matter for reflection to those who one day will have to write the history of the present time as it is, or ought to be, indelibly recorded in solid materials. The sketch in question, however, represented not a century's decay, and invited no survey of dilapidations,—indeed, the conventional tombstones, beneath which rude forefathers of the hamlet might have slept had they had the opportunity, were conspicuously absent. Yet the directors of a wonderful daily pennyworth of artistic work mistook the sketch of the brand-new church about to be erected, for that of the old one it was meant to replace!

A Thesaurus of Architecture.

The Baron von Geymüller's suggestion for a monograph of the Drawings left by the Great Masters of Architecture from the fifteenth to the eighteenth centuries, of which he gave a description in *The R.I.B.A. Journal* [28 July 1892], has recently taken a definite form in the shape of a prospectus with specimen-illustrations addressed to patrons of Art in Europe, America, and Australasia, and written in English. The title of the proposed work is a "Photographic Thesaurus of Architecture and its subsidiary arts, a classified "collection of Facsimiles and reproductions of the Original Designs of great Masters, "from drawings, rare engravings, frescoes, and paintings, forming a corpus of "artistic thought in Europe during the Renaissance and subsequent periods." The Baron's proposal invites two distinct efforts: (1) an exploration, artistic and archæological, to extend over the greater part of Europe; (2) a publication of several thousands of facsimiles of original drawings, in phototype, forming a collection or a sort of museum, perhaps unique, and without any precedent in the history of Art. The character of the work and the conditions of subscription relating to its production are worthy of the *Grand Siècle* and of its magnificent Patron. The edition is to consist of thirty copies only, being one copy each for thirty subscribers, who are to pay £200 per annum for five years—in fine, £1,000 apiece. The United States, one of the wealthiest communities in the world, has not yet given a definite reply, but it will probably be satisfactory. Her Excellency Madame Polovtsoff, of St. Petersburg, has subscribed for a copy to be furnished to the School founded by Baron Stieglitz in the Russian capital; and the authorities of the Biblioteca Vittorio Emanuele, at Rome, have promised to subscribe for another. When eighteen more subscribers have been secured, Baron von Geymüller proposes to commence operations.

A Warning from Australia.

At the end of a notice, by Mr. Richard F. Grantham, of a Statement of the New South Wales Public Works Department respecting works carried out in 1891, the author wrote [page 386 *ante*] that there seemed to be abundance of work in that and other colonies all the year round both for engineers and architects, and that it could not be difficult for a well-trained young man

with good introductions to find employment there. This statement, most innocently made on the strength of what a reviewer had read in an official Paper entrusted to him for notice, has aroused strong feelings of disapproval among some of the architects in Sydney. It is there regarded, and, considering recent disasters, with reason, as most dangerous advice, and likely to induce young men in London offices, as soon as their term of pupilage is up, to rush off to Australia, confident that they have only to ask for professional work to obtain it. But Mr. J. Horbury Hunt, a Fellow of the Institute, President of the Institute of New South Wales, dating from Sydney on the 22nd July last, writes with evident feeling and sincerity to caution people at home against seeking to better themselves in Australia at the present time. He says :—

Young men with wives and little families may be tempted to give up good appointments and break up comfortable English homes, and come out here to meet with misery, disappointment, and probable destitution—which has been the fate of many, to my personal knowledge. Numbers of cases of a most distressing character have, from time to time, come under my notice, and have made me wish for wealth if only for the pleasure of helping my brother chips out of trouble. Let me tell your correspondent that he is now being confronted by an old colonist, one writing with the knowledge and experience of a busy colonial life of more than thirty years. Here is one of many cases I could cite for his future consideration. A fine gentlemanly young man enters my office seeking work. On being informed that I had none to give him, and did not know of any office to which he could apply with any prospect of success, he then told me he had spent all his means in two of the other colonies seeking work in vain. I asked him who advised him to come to the colonies. He replied that he had read a paragraph in one of the leading home journals which induced him to come out with his little family. I expressed some doubts as to such a fact, when I was met by his saying, "I have the slip at home," which he produced the next day. It was just such a paragraph as I am now dealing with.

Our profession is now in such a deplorable state, with so much distress existing in our ranks, and for so long a time, that I have determined to risk all and every kind of abuse, and in this way warn those in the professions of civil engineering and architecture against coming out here until they make certain of the state of the profession, or obtain from some responsible resident of experience information as to their prospects. A man with sufficient means to support himself (and a family, if he has one), say, for at least a couple of years, until he can overcome keen competition, and by dint of perseverance backed by ability gain a position, may venture to come—but to even these men, let it be clearly understood, the chances of success are at present *nil*, and for many years to come will, I fear, be limited. Each colony is to-day over-burdened with every class of professional men. When times are bright and prosperous, it is the high-class mechanic and skilled labourer we want.

Two other Fellows of the Institute, former Presidents of the Institute of New South Wales, have also written, supporting Mr. Horbury Hunt, and stating that they have read his letter, the greater part of which is given above. Mr. G. Allen Mansfield says that "a large number of clever young men of our profession are now without "employment, and without hope of getting it for a long time to come." Mr. Thomas Rowe says that "There is not at present employment for a moiety of the large number "of qualified men who are already here," adding that in his opinion no reinforcements of young architects from home will be required for the next ten years.

COLONIAL SOCIETIES.

The South Australian Institute.—Mr. M. F. Cavanagh [*A.*], of Adelaide, the Hon. Secretary for South Australia, has sent an interesting report, which states that the South Australian Institute of Architects practically includes all the architects practising in the colony, and numbers about twenty members. The matter of competitions has been inquired into by a sub-committee, with the result that the Paper of "Suggestions" recently published by the Institute has, after careful consideration, been adopted exactly as published, without alteration or amendment. The population of the colony is about three hundred thousand, and architectural work is done, as a rule, without the guiding hand of an architect. A great deal of inspiration is drawn from American work, especially in Melbourne, where the American professional journals are widely read; and general satisfaction is expressed at the recent action of the Institute in electing Mr. R. M. Hunt, of New York, as a Royal Gold Medallist. Adelaide is eighteen hours by rail and two days by sea from Melbourne, and two days by rail and five days by sea from Sydney.

The South African Association.—The first Annual Meeting of the South African Association was held at Johannesburg on the 28th of last June, when the Council presented their Report, in which they stated that at a General Meeting of Engineers and Architects, on the 15th June 1892, members of the Council and officers of the newly-founded Association were elected. By-laws were made and passed at that meeting, since which forty-three engineers and architects

have been elected members. The Council for 1893-94 include members of the Institution of Civil Engineers, and of other cognate bodies at home, and the newly-elected President is Mr. Arthur H. Reid [*F.*]. The objects of the Association are stated to be the general advancement of engineering science and architecture; and its members must have been regularly trained as engineers or architects, and have had subsequent practice as such for at least five years; they must be actually engaged at the time of their application for election on some responsible work of engineering or architecture, and be not less than twenty-five years of age.

Wellington Association, N.Z.—A pamphlet giving the Constitution and By-laws of the Wellington Association of Architects, founded 16th August 1892, and its "Scale of Professional "Charges," has also been received by the Council. The Association at the close of last year numbered about thirteen members. The Paper of Suggestions for the Conduct of Competitions, recently published by the Institute, has been adopted by the Wellington Association, and printed in the pamphlet above referred to.

SIR WILLIAM CHAMBERS, R.A.

London, 21 *Sept.* 1893.

GENTLEMEN,—The very interesting letters communicated by Mr. Wyatt Papworth in *The R.I.B.A. Journal* of the 24th ult. [pp. 481-86 *ante*] contain among them one from Sir William Chambers to the Rev. and Honble. A. D. Harley (16 Feb. 1774), who was Rector of the Parish of Marylebone and occupied the Chair of the Select Vestry. This letter refers to works at the Court House and Burial Grounds, and since Mr. Papworth, in his concluding remarks thereon, says, "The Court House, I presume, is the one now "existing in Marylebone Lane, near Oxford "Street," I venture to submit the following facts:—

The old Court House, therein referred to, was the one that formerly stood fronting Oxford Street, south of the Watch House (the date of their erection being 1729), and occupied the position of the two existing shops. The old Court House and Watch House were rebuilt in 1804, the latter from plans furnished by Thomas Hardwick* (a pupil of Sir W. Chambers) in 1801, and for which he was paid £10. 10*s.* by the Select Vestry, but in the erection of which he does not appear to have acted as architect. The present Court House was erected in 1824 on the north side of the Watch House (which was allowed to remain, and still exists), on the site of some stables and of the parish pound,† from plans supplied by Mr. Ed. Tilbury (then acting as Parish Surveyor, no independent architect being employed), under contract, dated 18th August 1824, with James and William Hutchons of Alsops Place, St. Marylebone, the price being £4,944, the contract providing that the building should be covered in by the 18th October, and completed by the 18th November 1824; but it was not opened for business until 1825. No doubt the object in building on the new site was in order that the old Court House should be available during the erection of the new one, and on its demolition, the ground, with the valuable frontage in Oxford Street, might be sold to help to defray the cost of the new building and site.

The burial ground referred to in the letter was that on the north side of Paddington Street (now used as a recreation ground for the Workhouse inmates), and which was consecrated in 1772. The six designs mentioned were for a new parish church, originally proposed to be erected on the site of the said burial ground, which was first offered as a gift to the parish by Lord Portman for that purpose. This project was abandoned, and the site afterwards purchased of Lord Portman for a burial ground, and the existing church was eventually built, on the present site in Marylebone Road, from the designs of Thomas Hardwick, and consecrated in 1817. "What became of this "troublesome business" is shown by the following extract from the Vestry Minutes:—

"St. Marylebone
"April 30, 1776 } At the Vestry

"The Board upon taking into consideration the "time, expence and trouble Sir William Chambers "had been at in drawing several plans and mak-"ing estimates of the intended Church and for "surveying the new vaults and walls round the "Burial Ground did

"Resolve unanimously to pay to the said Sir "William Chambers as a gratuity for the same "and in lieu of every demand made to this time "upon the Trust the sum of One Hundred and "twenty pounds."

I have no doubt that this settled the business, as I cannot find any further entry respecting it in the Minutes. From these facts it appears that Sir W. Chambers did not meet with very liberal treatment at the hands of the Select Vestry.

The Secretaries, R.I.B.A. THOMAS HARRIS.

REVIEWS. XIV.

(36.)

THE MODERN ARCHITECT.

L'Architecte moderne devant le Code Civil. Par Achille Hermant, Architecte Honoraire du Département de la Seine. 8o. *Paris* 1893. [*M. G. Delarue, Libraire-Éditeur, 5, Rue des Grands Augustins, Paris.*]

This is a book which has necessarily more interest for French than British architects; but as it treats of the triple responsibility of the

* Many of Thomas Hardwick's drawings, and other drawings made by assistants in the office of Sir William Chambers, are in the Institute Library, having been presented by the late Philip Hardwick [*F.*].

† The old pound stood at the north angle of the triangular site; in confirmation of which fact it may be interesting to note that a public house, on the south side of Oxford Street, near the site, still bears the sign of "The Hog in the Pound."—T. H.

architect, and defines the character of the mandate he receives from the client who employs him, there is much in it that may be carefully considered by professional men on our side of the Channel. Though here there is no *Code Civil* to perplex the legal soul in its treatment of architects, British lawyers appear to know so little about the latter and their work that members of the Bar might do worse than consider some of the points raised by Monsieur Hermant in the recent treatise he has presented to the Institute, of which he has been an Hon. Corresponding Member for several years. It is a treatise which appears to have grown out of the Report edited by him of an official Commission appointed in Paris in 1890, by a department of the Government, "to examine "the legal conditions under which is exercised "the profession of architect," &c.,—a Report which has formed the subject of more than one Sessional Note in *The R.I.B.A. Journal* [Vol. VII. N.S., pp. 169-171].

The main object the author has evidently in view is to show his countrymen that the several Articles of the *Code Civil* which determine the modern architect's position, duties, and responsibilities were made at a time when he "exercised "the art of building"—when he was contractor as well as architect; and that therefore the legal basis on which such position, duties, and responsibilities are now judged is wrong in principle. The successive definitions of the term "*architecte*" given in the Dictionary of the Académie Française, like those of the cognate term "*artiste*," suffice to prove his contention. Thus, the architect is defined by the Academy—

In 1694—one who knows the art of making to build (*faire bastir*).

In 1718-40—one who knows the art of building.

In 1762-98—one who exercises the art of building.

In 1835-78—the artist who composes edifices, determines their proportions, arrangements, decorations; who causes them to be executed under his orders, and who settles their cost.

Putting the matter in another form: at the end of the seventeenth century the architect designed, superintended, and settled the cost of works which others built; during the eighteenth he built, or he hired workmen, provided materials, and charged his employer for the same; in the nineteenth century he returned to the custom of the seventeenth—at least, if the academical definitions can be relied on. In any case, the architect of our time exercises a profession, and is removed, or he ought to be removed, from all mercantile operations, which operations are now entrusted to a building tradesman. The architect's functions are threefold—(1) the conception and preparation of the design; (2) the direction and surveillance of the work; (3) the verification and settlement of the cost. It is the building tradesman who has to execute the work, to furnish and work up the materials. Having, at one time, united in himself the double quality of the artist who conceives and the tradesman who executes, the architect, says M. Hermant, has now ceased to be a tradesman and remains solely an artist, or, as the context infers, a professional man.

The author, however, indulges in no inflated sentiment about architecture or art-architecture; on the contrary, he states the case with a frankness which to a mind of feminine mould may appear almost brutal. According to him a simple foreman whom a client commissioned to supply designs, to advise on their execution and superintend it, and who stopped there, would fulfil the functions of an architect and ought to be treated as such; a Philibert de l'Orme who contracted for the erection of a building, the materials for which he furnished, would fulfil the functions of a building tradesman, and ought to be subjected to the rules which govern that calling. And it must not be forgotten that this, in the opinion of a distinguished French architect, is the position respectively of the architect and the contractor before the law. Practically, to the still vexed question "What is an Architect?" M. Hermant affords material for the answer by a negative definition: that, under present conditions, an architect is not a building contractor, and that when he becomes a building contractor, or enters into mercantile operations connected with building, he is not an architect.

Whether the assumption that the functions of the modern architect are those of his seventeenth-century *confrère* be strictly correct—and Colbert's foundation in 1671 of the Academy of Architecture goes to support it—is of no importance to the argument. What an architect was at the period of the erection of the Pantheon (whenever that may have been), or during the dominant influence of Cluny over Western Europe, may be left to the mercies of antiquarian discussion. But there is every reason to believe that at the end of the fifteenth century, in France and England, an operative or artisan was often employed as architect, much as he still is in Persia, and until very recent years in India. The sixteenth century saw the advent of the painter and the sculptor and the decorator, who provided architectural designs which were not executed by them; but in the seventeenth, especially in France, the architects held their own, keeping the painters and sculptors in subjection, and employing them on their buildings. That in the eighteenth many architects were also contractors is well known, and at the beginning of the present century the connection between the profession and trade of architecture was so general in France and England as to amount to a scandal, which in both countries was removed by the foundation of Societies consisting of members who were purely architects. That the modern architect is, as far as his practice goes, one who knows, or ought to know, "*l'art de faire bastir*," as defined by the Académie Française in 1694, is indisputable. Whether, in the course of the twentieth century, he may revert in this country to the Italian type of the fifteenth or the French type of the sixteenth will depend very much upon the events of our own time. But to effect such

a reversion, he must give up two of the three functions which, according to M. Hermant, he has now to fulfil.

What these three functions are has been already stated, and the minute way in which M. Hermant treats of the responsibility of the architect towards his client is most instructive. Under the head of Relations between the Architect and the Employer in the past and in the present, the author insists that when the architect exercised the art of building as a general contractor, his employer's interest and his own were opposed to each other: the interest of the employer is always to obtain at the lowest price the best building possible, which is the interest of the one who buys; the interest of the contractor is always to deliver even the most ordinary building at the highest price possible, which is the interest of the one who sells. In a contract made between an employer and an architect-contractor the ignorance of the former renders his control illusory—as the one can only produce inexperience where the other brings ability. Confidence of the former in the latter is an indispensable element in the conditions of such contracts. At the present moment the architect makes the design, determines the conditions of execution, and estimates the approximate cost; he then confides the work to a general contractor, or to several contractors, who may be chosen by the employer or selected by other means, and on this point the modern architect acts simply as an adviser. The contract is made between the employer and the contractor; the architect is no party to it. During the progress of the works the architect's mission is to direct, to watch over (*surveiller*) them and those engaged upon them, and to see that the buildings are carried out in accordance with the drawings, the specification, and the terms of the contract. He, an expert in the art of building, receives a mandate to act as the agent of the employer supposed to be ignorant of that art. He does not construct, properly speaking, for the employer; he controls those who do. Instead of being the antagonist of his employer, as was the case when the architect was also a contractor, he is his employer's supporter or defender, the guardian of his employer's interests. At the same time, by upholding the terms of the contract he is the protector of the contractor.

What are his responsibilities in France before the law? First, as regards the conception and preparation of designs, which M. Hermant maintains an architect executes to order, as a painter executes a picture and a sculptor a statue. In this they all furnish both work and material. What marble or bronze is to the sculptor, what canvas and frame are to the painter, the paper on which designs are made is to the architect. As a picture or a statue when finished is delivered to an employer, so the architect hands in his design. It may be artistically bad, defective in arrangement, impossible to construct; but, according to M. Hermant, the employer has ordered it, and he alone is judge of its quality. If he accept it, thus imperfect, he suffers no more damage or loss than if he buys a bad picture or statue. So long as the employer does not order it to be carried out, no responsibility for it is incurred by the architect, even though the design he has delivered is defective. His responsibility begins only when the employer orders it to be carried out; but then the second function of an architect begins, namely, the direction of the work and the surveillance of those who execute it. In the first function, the design, the architect is not responsible before the law; he may design the impossible without incurring the slightest legal risk!

An employer having entered into a contract or contracts for the execution of an architect's design, and authorised the latter to direct and watch over (*surveiller*) the work, the architect's responsibility becomes apparent. It may be that defects of plan, or of constructive arrangement, or of foundation, or of soil, cause the failure of the building, that he manages the business part of the work badly, that his control of the contractors and their work is negligent. Hence there are three suppositions to consider. Where (1) the failure of the building is due exclusively to the bad quality of the materials and their defective use: then the question arises whether the business has been well or badly managed by the architect. Where (2) such failure is due incidentally to bad points in the design executed: then a distinction has to be made between a case in which the design has been drawn by one architect and its construction superintended by another, and a case in which the execution of the design has been entrusted to the superintendence of the architect who made it. Where (3) such failure is due at once to bad points in the design, and the bad quality as well as defective use of the materials employed in its execution. M. Hermant examines each of these suppositions, and sifts the responsibilities attaching to each. He points out that the *Code Civil* (Art. 1792) makes no distinction between the words "architecte" and "entrepreneur," which are given in the singular as synonymous terms, and not as two distinct personalities; and that the words of the *Code* "Les architecte et entre-"preneur en sont responsables . . ." are imperfect and incomplete.

Finally, as to the third function which the architect has to fulfil—the settlement of the accounts. This, of course, is a more important and more complicated matter in Paris, where the architect has to control a dozen contractors engaged upon one work, than in London, where in most cases a general contractor is employed. But a Parisian has to do it as part of an architect's duty, and his remuneration for it is a recognised item of his five per cent. commission. He is responsible before the law for the *états de situation* of the works in hand which he submits to his employer, and for the certificates which he bases thereon. But the wide difference between practice in London and Paris, and the comparative immunity of the architect under the system of general contract, render it difficult to understand in this country the position of responsibility—when such responsibility is rigorously enforced

—held by the French architect in his relations with an employer. Unless my memory deceive me, an architect in France has been condemned to pay bills of extras he has been unable to legally justify, his only remedy being an action at law against the contractors whose work he has directed and supervised.

With but slight exception I have simply repeated in this notice the statements made in M. Hermant's book; but having had some practical experience of the French system, whereby the architect is necessarily compelled to give more time to the conduct of the works during execution than he does in England, and having opportunities of hearing opinions from various parts of the world, the reflection arises—Is there not a tendency among architects generally to accept less and less responsibility? Is there not a tendency to revert to the system, inaugurated by the painters and decorators of the Renaissance, of making only the drawings of a design—shown by M. Hermant to be delightfully free of responsibility—and leaving the superintendence of its execution to an engineer, or even the general contractor employed to execute it; and the settlement of its cost—weary, inartistic details of lucre, filthy or otherwise—to the quantity surveyor? Such, indeed, may become the practice of the twentieth century; but the then modern architect will be only a draughtsman or designer, the inevitable assistant of a man of science like Wren, or of a man of the world like François Blondel, or of a gentleman like Sir William Chambers, whose respective buildings, the execution of which they directed and superintended, and the business of which they conducted, still rank among the chief architectonic glories of London and Paris.—WILLIAM H. WHITE.

(37.)

A VERY SACRED UMBRELLA.

A Preliminary Study of the Po-u-Daung Inscription of S'inbyuyin, 1774 A.D. By Taw Sein-Ko. 1893. [*Reprinted from The Indian Antiquary, Bombay.*]

The Indian Government have forwarded a copy of a reprint from *The Indian Antiquary*. It is an article by Taw Sein-Ko, entitled "A Pre-"liminary Study of the Po-u-Daung Inscription of "S'inbyuyin, 1774 A.D.," giving a translation, with notes by the author. The inscription records the progress of S'inbyuyin, who was king of Burma in 1774, from Ava to Rangoon, and the placing of a new *ti* on the Shwé Dagôn Pagoda at the latter of these places. The paper is a philological one, but it contains some references to Burmese architecture which may be worthy of a slight notice. The *t'i** of the Burmese Pagoda is the same as that which is expressed by the word *tee* in the Buddhist architecture of India. In India the *tee* was formed of one or more umbrellas which surmounted every stupa; and the word is generally used to include at the same time the square box-form on which the umbrellas stand. Some of the sculptures at Sanchi show one umbrella over a stupa, but there were generally more than one over these shrines. In one of the Chaitya Caves of Ajanta, the chaitya, or stupa, which was the object of adoration, still stands perfect, and it has three umbrellas. In the Indus region we now know that there were more, and at times as many as eleven or thirteen; and the great stupa at Peshawer had twenty-five—the numbers were always odd ones. It was from this tall pile of umbrellas on the northern stupas that the columnar form with rings on it was developed, such as we find in the stupas of Nepaul and in the *Chortens* of Tibet. The pagodas of Burma, which are one of the many varied forms of the stupa, have only what appears to be one umbrella,* but it is an elaborate and costly object; it is covered with gold and precious stones. A late king of Burma presented a new *t'i* some twenty years ago, or more, to the pagoda at Rangoon—most probably the successor to the one referred to in the inscription of S'inbyuyin—and its value was estimated at £62,000. It was made in Mandalay, and there was much pomp and ceremony in its passage down the Irrawady. Ava was the capital at the time of S'inbyuyin, where the *t'i* was made, and the grandeur of its ceremonial progress to Rangoon, as told in the inscription, gives some idea of the sacred importance that was attached to this symbolical and architectural ornament. The king accompanied the *t'i* in "a "beautifully-wrought bejewelled raft, furnished "with all regal splendour. Four white umbrellas "were planted on the raft, which was surrounded "by various kinds of gilt boats and other rafts." It was escorted by eighty battalions of land and naval forces, and 20,000 cavalry; 500 ponies, and 1,600 elephants, headed by the Hàn S'inbyû, the sacred white elephant called Hàn—"from the "possession of which King S'inbyuyin [Lord of "the White Elephant] derived the title by which "he is known in history." The ministers and military commanders of different grades; all distinguished by birth or position; the queens, concubines, officers, attendants, &c.—in fact, the whole court, government, and army, went in attendance upon this sacred umbrella, and held "high festivals" at every stage of the journey—the distance from Ava to Rangoon by the river is over 800 miles. It would be difficult in the history of the world to find a fragment of architecture receiving such an amount of extravagant honour as we have here described in this inscription. The Shwé Dagôn Pagoda is believed by the Buddhists of Burma to contain relics of the four successive Buddhas—that is, the water-strainer of Kakusandha, the bathing-robe of Kônâgamana, the staff of Kassapa, and eight hairs of Gautama, or the last Buddha. From the inscription we learn that this pagoda was also called the *Sàndòshin Chêti*, and the *Digumpa Chêti*—this last, Taw Sein-Ko says, is the Pali translation of

* This is the spelling in the paper. Other writers have given it as *htee*.—W. S.

* There are a number of rings in the *t'i*, and it has three crowns, which are most probably indicative, if they are not survivals, of the triple canopy.—W. S.

Dagôn Chêtî—*Chêti* being evidently a variant of Chaitya. The King S'inbyuyin rebuilt a pagoda on the Po-u-Daung Hill, on the rock of which the inscription has been cut, and gold, silver, and *mógyó* * bricks were laid as its foundation. No foundations of this kind have as yet been discovered in the stupas of India; but it is known that a similar practice existed in Ceylon. The *Mahawanso* describes the laying of the foundation of the Ruanwelli Dagoba, in which the king placed eight gold and eight silver bricks.

WILLIAM SIMPSON.

(38.)

ELECTRICAL ENGINEER'S PRICE BOOK.

Griffin's Electrical Engineer's Price Book, for the use of Electrical, Civil, Marine, and Borough Engineers, Architects, Railway Contractors, Local Authorities, &c. Edited by H. J. Dowsing, M.I.E.E., &c. 8o. *Lond.* 1893. [*Messrs. Griffin & Co.*, 12, *Exeter Street, Strand, London, W.C.*]

Of this book, somewhat larger than the well-known "Laxton," it may be said at once that it will be extremely welcome to all who have to do with the many modern developments of electricity, and that its information is, as a rule, copious, accurate, and useful. It contains information and prices relating to buildings for central stations, steam, gas, and oil engines, turbines and dynamos, and their necessary accessories; accumulators, measuring and regulating apparatus, cables, wires, conduits, meters, lamps, and fittings. Other sections deal with electromotors for all purposes, electric deposition and welding, primary batteries, telegraphs, telephones, bells, lightning-conductors, and many miscellaneous matters. The second part contains statistics, tables, specimen reports, specifications (that for wiring a house being very good and particularly deserving of an architect's notice), estimates, Board of Trade and other regulations for electric supply.

The editor invites useful criticism, and it may therefore be desirable to point out some instances where improvement might be made. On page 6 it is suggested that foundations should be made of "Portland cement and sharp sand," where no doubt "clean river ballast," as mentioned on page 27, is intended. On page 8 it is said that "shell" boilers are not safe at 150 to 180 lbs.; but authorities like the Manchester Steam Users' Association, or our best boiler-makers, would tell a different tale. The engine, boiler, and dynamo lists suffer much from want of a few illustrations, which could easily be supplied, as, like most of those in the book, they are extracts from the catalogues of makers whose names are given; and these catalogues are nearly always illustrated.

A note explaining "nominal," "indicated," and "brake" horse-power is much needed to enable readers to compare the engine and boiler lists with each other, and with those for the dynamos, which the prime motors have to drive. Indeed, one may well ask why "nominal" horse-power is used at all. It appears alone in the lists of Davey-Paxman engines and boilers, and together with "indicated" in the gas-engine lists; but the Brush engines are listed by their indicated horse-power, and the Willan's by a series of numbers headed "Maximum Load," with nothing to show what this means—this last is a really serious omission. The Crossley oil-engine has indicated horse-power and brake horse-power; but the Priestman, with two pages of sizes, has only the nominal, which may mean anything. The turbines (p. 42) have no power put to them at all, so the prices are of little value, and the formula on page 44 does not meet the want, while the Pelton wheels are described by their "horse-power" only. If all firms would only list indicated horse-power it would save much of this confusion. It may be noted that only *four* makers of steam engines and boilers are given, so that many of the highest rank are necessarily excluded; while there are prices quoted for no less than *fifteen* makers of dynamos, many of which, as regards their general efficiency, are as like as two peas. This section might with advantage be very much compressed, and space afforded for a few necessary explanations. For instance, most of the machines are listed by their output in "watts," but nowhere is the reader told how to compare this with the horse-power of his engines. Several prices are given for engines and dynamos combined, and for the dynamo alone; but, on page 96, Parsons' "steam turbine dynamos" are mentioned without any indication, except what the price affords, as to whether the steam motor is included or not.

The description of the types of accumulators in common use (p. 100) is meagre; nor is there any explanation, which a few lines would give, as to the meaning of the "L," "K," and other types, and the necessity for having 53 cells to drive even one 100-volt lamp. The prices for single cells are hardly needed.

On page 125, the 4 per cent. variation in pressure, allowed by the Act, is mentioned, but "undertakers" (lovely name!) should be warned that anything more than 2 per cent. will lose them customers. On page 131 Evershed's testing set, a most useful set of apparatus for testing installations, is inadequately described as an ohm-meter.

The cable and wire lists extend over many pages; but surely it would have been sufficient to give those of one good maker, like the Silvertown (here appearing as "The India Rubber Co."), and mention the names of others to whom readers could apply for prices. No one can possibly want so many detailed lists of the same things. The space thus saved would allow of a short explanation of insulation resistance, lest the unwary architect or local authority should decide to put in all his cables at 150 megohms per mile, and feel proud of the economy he had effected.

In the lamp list (p. 210), it is amazing in a book issued so recently to be told that the Edison Company are the *sole* makers of these lamps, at 3*s.* 9*d.* each for 16 candle-power, without any note that the patents expire in November, when the

* *Mógyó* is explained as being an alloy of gold and copper in proportions of half and half.—W. S.

prices may be less than one fourth of those given. As these notes are written, the company have reduced the price to 1*s.* 9*d.*, although as yet there can be no competition. This fact affects also the prices of "Andrews'" lamps on page 216.

The list of meters might be amplified a little, the familiar Schallenberger being altogether absent. The rules for transmission of power seem well arranged and useful, as are the particulars of central stations, specimen reports, &c. On p. 324, however, is one of Mr. Preece's optimistic statements about the comparative cost of gas and electricity, which does not agree with the safer formula of the late Mr. Gordon, given on p. 394.

The chapter on Lightning-Conductors (300–301) should be rewritten in much more guarded language. The "area of protection," now quite exploded, is given as "generally understood," which it may be; and it is stated solemnly that "no building which has an efficient lightning-conductor system can be injured in any way." This may, in one sense, be quite true; but how about the Hôtel de Ville at Brussels, and the other instances quoted by Prof. Oliver Lodge? What is an efficient system? If M. Melsens does not know, it is of little use to recommend us to competent persons, as in the sentence on page 301.

As mentioned before, the Wiring Specifications on page 345 are excellent, and the only criticism one would make would be that space should be left in the schedule of lights for the price of each fitting, which may be provisional, but should certainly be included where the employer is going to pay for them.

Lest intending users of electricity should be alarmed by the extensive questions to be answered by insurers in a certain Insurance Company (387–389), it may be well to point out that these questions may be asked, but no one need answer them; there is quite sufficient competition between the Insurance Companies to make them only demand what is reasonable.

It is hoped that the criticisms contained in these notes may be taken as intended only to lead to the improvement of future editions, for of the usefulness of the work under review there can be no question.—R. Langton Cole.

(39.)

BARTOLOMEO COLEONI'S HOME.

Il Castello di Malpaga e le sue Pitture. Da Carlo Fumagalli. 4*o. Milan*, 1893. [*Tipografia Pagnoni.*]

Every one knows Verocchio's equestrian statue of Bartolomeo Coleoni,* generalissimo of the armies of the Republic. But very few travellers have traced "the great captain" to the spot where, so far away from Venice that it requires an effort to realise that it was ever included in Venetian territory, he spent the last twenty years of his life in almost regal state, keeping about him a retinue of six hundred knights, and entertaining monarchs as his guests with a magnificence which was long remembered. The lonely castle of Malpaga, in the district of Bergamo, chosen by Coleoni as the home of his later years, stands at the present day very much as it was left by him and his immediate descendants; it is equally noteworthy for the stern dignity of its simple and massive structure, and for the artistic and historic value of the mural paintings which embellish it. Some of the latter are known in England through the copies published by the Arundel Society, from drawings made by Sir Henry Layard.

Signor Fumagalli has undertaken the task of describing and illustrating the Castle of Malpaga; he has produced a very pretty and interesting little work, a copy of which has been presented to the Library by Signor Beltrami [*Hon. Corr. M.*]; it is not, indeed, a complete monograph of the building, about which a larger volume might well be composed, but it gives an excellent general idea of the place and its associations, containing enough to satisfy the demands of any but special students. His book chiefly consists of a series of twenty-five tastefully-executed photographs, giving views of the Castle both within and without, together with representations of the best of the wall-paintings, taken direct from the originals. Of the latter the most celebrated are those commemorating the visit of King Christian I. of Denmark to Malpaga, painted by Romanino, early in the sixteenth century; others date back to Coleoni's own lifetime. A large part of the Castle, as we now see it, was built by Coleoni, but his additions are engrafted on a much earlier building, the remains of which are still the most conspicuous feature of the place, though their history does not appear to have been traced.

Arthur S. Flower.

* See Transactions, Vol. VII., N.S., p. 219, for an illustration of this great work.

(40.)

PAINTING AND SCULPTURE.

French Art. By W. C. Brownell. 8*o. Lond.* 1892. [*Mr. David Nutt*, 270 *&* 271, *Strand, London, W.C.*]

Modern Painting. By George Moore. 8*o. Lond.* 1893. [*Mr. Walter Scott*, 24, *Warwick Lane, London, E.C.*]

I am inclined to applaud the statement of Mr. Brownell in his volume on French Art that "it "is a sure mark of narrowness and defective "powers of perception to fail to discover the "point of view even of what one disesteems." Nowadays, if ever, we have need of such a maxim, and perhaps it relates more especially to other arts than to our own. Mr. Brownell is thinking of painting, and is wise in pointing so bluntly to an undoubted defect in our methods of appreciation. His book, and a kindred but very dissimilar one by Mr. George Moore, entitled *Modern Painting*, are, if rightly used, two useful guides in the sometimes difficult process of seeing a phase of art from another man's point of view. Mr. Moore's book is by this time known to many, and indeed portions of it appeared during last year in the form of contributions to *The Speaker*. His special circumstances and opportunities, to say nothing of his critical ability, place him in a favourable position as an exponent of these newer methods (should I say experimental processes?) of modern painting which are the passion of a

certain body of artists and the stumbling-block of many onlookers. It is easy enough to go to an exhibition of the New English Art Club armed with the boisterous sneer of ignorant pity—it is as easy to go there prepared to admire everything with equally ignorant enthusiasm; but it is a harder and a more conscientious course to endeavour by inquiry and examination to sympathise with the aims towards which, however unsuccessfully or tortuously, the painters have laboured—to see with their eyes the problems they are engaged in solving. There is an old story which does duty in Latin grammars about the Greek painter at whose grapes the birds pecked; there is a more modern tale on the same lines which relates how an impressionable picture fancier, left alone in a studio with a sea-piece, stripped himself and took a header through the canvas. To-day we no longer expect our painters to make verisimilitude their aim—we are conscious of being educated out of wishing for direct representation in painting; but still there are men, not Philistines either, who find a difficulty, without proper guidance, in approaching the appreciation of a work of art in which too many of the old-world notions of a picture are discarded. Mr. Moore's book is a genuine help in this matter, and the five essays dealing with the modern French schools, together with that on the New English Art Club, give a perfectly clear, if sometimes an over-enthusiastic, account of the genesis of the recent schools of work. Mr. Moore is not a man to swallow *any* absurdity in the name of impressionism—but even where he scoffs he can be fair; and his really humorous account of the French school of "dottists" is, for all its sarcasm, a perfectly logical explanation of an only too methodical madness. I am not concerned here to follow Mr. Moore through the stages of his arguments, but I would warn any one who is about to read his book seriously not to begin at the beginning. The article on "Whistler" with which the volume opens is a piece of clever fooling which, brilliant as it is, casts an entirely false light upon the more real portions of the book. Mr. Moore, need it be said, is one of the opponents of the Academy, and makes very merry over his task of butchery, which he performs *con amore*; he is very funny, too, in his sketches of picture dealers, aldermen, picture-buyers, and the rest of them—a race whom he may consider fair game. We live in an age when every man may say what he thinks and think what he pleases; but, for all that, there is "a remnant" of honest souls who will consider the author's article on the Royal Family an exhibition of unusually bad taste. Our Reigning House, like other patrons of art, have made mistakes—and many critics and artists may feel on this subject more than they think fit to say; but Mr. Moore, unfettered by considerations of courtesy, has exerted to the full the privileges of belonging to a country and a period in which the monarchy takes no heed of public abuse. His chapter on Royalty is of course as amusing as it is trenchant; and though the proper place for such writing is in a halfpenny evening paper, it remains a fact, whatever be the cause, that our national art-training is not what it should be; perhaps, indeed, it is impossible to chain art to a "Department," and Mr. Moore, in his paper on artistic education, does well to poke fun at the laborious and abortive course which our institutions prescribe as the orthodox method of learning to draw. Such a course is not a ladder, it is a treadmill; the labourer thereon does not ascend, he merely grinds.

In Mr. Brownell's book the (to architects) most attractive chapters are those on sculpture. I suppose that there is no subject on which it is so difficult to write with anything like analytic clearness as this art. To know good sculpture from bad is in itself no mean exercise and criterion of artistic taste. Any one, to be sure, can detect actual bathos in sculpture; but to be able to say of two pieces of sculpture, both of which are anatomically correct, that one is a work of art and that the other is not, argues the possession of a critical faculty which, unfortunately, is owned in but small degree even by sculptors themselves. With the exception of architecture, there is no art in which the sublime and the ridiculous lie so near to one another as in the art of sculpture. I am glad to see that Mr. Brownell recognises the claim of Jean Goujon to be "really the first "modern French sculptor," and that he gives him a front place not merely in the matter of chronological priority. We have at South Kensington a few, but some very characteristic, examples of this master, whose work cannot fail to help even the less initiated to an appreciation of what is meant by "style."

We English are sadly ignorant of the modern movements of French art—movements of which no artist, and certainly no critic, can afford to lose count. I have said that to architects these chapters on sculpture, which come at the close of the volume, may seem of more direct interest than the rest of the work; but all those who feel the scantiness of their knowledge of French painting, and who wish to know more about it than can be gained by an occasional visit to a few examples of Daubigny, Diaz, and Corot in some Bond Street or Haymarket gallery, will do well to take in hand and lay to heart the whole of these lucid essays on the work of our illustrious neighbours. Such a study is not mere supererogation in an architect. All art is one, whether it be painting or architecture, English or Continental.—PAUL WATERHOUSE.

Fine Art in extremis.—Last Monday, an evening paper became responsible for the following:—"What an elastic term is that of 'Fine "'Art'! At the Bristol Exhibition, exhibit 25 "(Section IV., Fine Art Division) consists of a "piece of hair from the tail of the first cow which "gave virus for vaccine inoculation." So far *The Globe*; but it should have known that, though Bristol artists may split with impunity a hair of the great Cow Question, as religiously as any Hindus, it will require more than September logic to include, even in the long tale of Art, an Art-tail.

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THE TRANSFORMATION OF ROME. When Commendatore Lanciani published in 1889 his admirable work on *Ancient Rome in the Light of Recent Discoveries*, it was thought by many students of Roman literature that no more fitting companion volume could be issued than a treatise on the rise of Christian art in Rome in the light of the same series of explorations. These expectations have been realised by the production of the present volume, entitled *Pagan and Christian Rome*,* a copy of which has been recently presented to the Library by its author. The twenty-one years which have elapsed since the appointment of a "Com-"mission for the superintendence and conservation of antique sculptures and other "precious relics recently found, and hereafter to be found, in the soil of Rome," have been fruitful of good work in the cause of archæology, and the results have been collated and classified with that care and enthusiasm, combined with an intimate knowledge of the subject, which mark the labours of so eminent an antiquary as Signor Lanciani. So astounding, indeed, have been the results of recent judicious explorations, that it is safe to assert that the investigations of the last twenty years have thrown more light on the many unsolved problems relating to the topography of ancient Rome than those of the whole century that preceded the appointment of an archæological commission. And the reason is not far to seek. The overthrow of Papal authority, which for so many centuries had given scant encouragement to antiquarian research, and the re-establishment of monarchy in a re-united kingdom after a lapse of eleven centuries, were the chief factors in promoting these results. Whatever may be the opinion of the modernising operations in progress in the city and its suburbs, or the merits of the controversy which has been waging for so many years on the alleged destruction of many remains of antiquity, there is little doubt that the gain to archæology and to general knowledge has been considerable, and that the rich harvest of objects discovered in the formation of the new quarters of the city has more than compensated for the removal of shapeless masses of brick and concrete, the purposes of which were mainly conjectural. From the consideration of modern operations let us turn to that older transformation of ancient Rome which commenced with the Christian era, and which, in its processes and results, has no parallel in the history of mankind. To trace the progress of the moral development of a great people by the aid of monumental remains and in the light of antiquarian research is no easy task. The value of the work carried on in subterranean Rome, which will continue to occupy the minds of many earnest men for years to come, has already passed expectation, and will compare favourably with that more extended system of exploration which is now covering nearly every known portion of Magna Græcia.

Early Christian history and primitive Christian art, interwoven so closely with many of the institutions and ceremonials of the Roman world, have hitherto been regarded as of secondary importance, and the conversion of Pagan buildings to the

* *Pagan and Christian Rome.* By Rodolfo Lanciani. 8o. Lond. 1892. Macmillan & Co.

requirements of another ritual has been passed by as hardly worthy of notice by the classical student. This neglect has been aided very much by the erroneous supposition that proselytes to the new doctrine were to be found only among the poorer classes of the population. But recent discoveries on this point are so startling that they may be said to constitute a new chapter in the history of Imperial Rome. The names of some of the leading families—the flower of Roman nobility and of patricians of high standing—have come to light from the depths of the catacombs, and bear testimony to the fact that, in the early days of Christianity, the new creed was accepted alike in the palace and the hut. The question, however, which arises is as to the difficulty with which the exponents of the faith could have performed the higher duties of State, embracing various grades of civil and military authority, without performing acts of idolatry. Tertullian, who wrote his *Apologia* towards the end of the second century, says: "We are but of yesterday, yet we fill every place that belongs to you—cities, "islands, outposts; we fill your assemblies, camps, tribes, and decuries; the Imperial "Palace, the Senate, the Forum; we only leave to you your temples." "But here," says Signor Lanciani, "lies the difficulty; how could they fill these places, and leave "the temples?" There is little doubt that the Imperial Government, tolerant of the creeds of other countries, when they were not aggressive, and ready to admit into their temples the gods of any nation that came under their sway, took little notice of the Christian Church as the organised form of a new religion, regarding it rather as an offshoot of the Jewish community, and as having none of the views or aspirations of a national body. As early as the time of Tiberius we learn that an attempt was made to place statues of Christ and Jupiter on the steps of the same *lararium*, and a century later Hadrian ordered temples to be erected in every city to an unknown god. He is said to have prepared them for Christ, but to have been deterred from carrying his plan into execution by the consideration that the temples of the old gods would become deserted, and the whole population turn Christian, or, as Lampridius puts it, *omnes Christianos futuros*. This historian, who flourished in the fourth century, says, in his life of Alexander Severus, that the Emperor was determined to raise a temple to Christ, and that in his private chapel he erected statues of Christ and Abraham alongside those of Orpheus and Apollonius the Pythagorean. But it was reserved to Gratianus to give full effect to his known animosity to Pagan worship, and his imperial decree prohibited for ever all forms of superstitious sacrifices in Rome and throughout Italy, even if offered under a private name, at private cost, and within the threshold of a private house. Thenceforth statues, to which divine honour had been offered for countless generations, were removed from the temples and exhibited in public galleries and places of resort as objects of art or of curiosity.

The peace and freedom that all classes of Christians enjoyed from time to time under the rule of the Cæsars were too frequently interrupted by every form of violence and persecution to admit of progress in any of the arts. Christian art, in fact, remained stagnant for nearly three centuries. There is little to show except symbolic delineations in their simplest forms—more noticeable as expressions of a new faith than for any artistic merit, or as indicative of the uprising of any new phase of art. Parker tells us that, in the splendid collections of the Vatican, Lateran, and Capitoline museums, not more than four or five sculptures can be pointed out as of Christian origin, and of these the majority represent the Good Shepherd, with which, as a pastoral subject, the Pagan Roman had been always familiar. Most recent researches add but little to this meagre list. The acceptance of Pagan institutions which did not offend Christian principles and morality, and the adaptation of symbols and symbolic representations used in heathen temples, were among the most conspicuous signs of the early transformation of ancient Rome. The altar which can be traced to prehistoric times in honour of the *Lares*, or guardian genii of each ward of the city, was the prototype of street shrines that became so numerous at a late

period of the Empire, and of the countless shrines and images to be found in every town and country that owed allegiance to Papal authority. The institution of standard weights and measures, the originals of which were preserved in the Temple of Jupiter on the Capitol, and of which numerous duplicates were supplied to the principal temples for the service of the public, was accepted by the Church, and *ponderaria* were set up in the principal basilicas. Till recent years, these stones, weighing from 5 to 100 pounds, were exhibited to the faithful as relics of martyrdom, and one belonging to the Church of St. Stephen, near St. Paul's, was believed to be one of the actual stones with which the martyr was killed. Another institution, worth noting for its acceptance, was the Agape, or love feast of the Romans, which became a fitting and enduring memorial of the Last Supper. And perhaps among the most noticeable customs in the classic days, none have taken a stronger hold on public sentiment in every age than the feast of roses, which the ancients celebrated in the month of May. Among the honours shown to the Emperor Hadrian, the *Rhodismos*, or scattering of roses, was a feature in the ceremonial; and so throughout all ages and in all countries the rose, as a mystic representation of the heavenly garden, has played a more conspicuous part in religious and social life than has been accorded to any other flower that grows on earth. Symbolism in other forms is equally prominent, as a means of decoration, in the early Christian burial-places, often so difficult of correct interpretation that the scenes depicted by the artist might be either of Pagan or Christian origin. Of Orpheus playing on the lyre while watching his flock, as a substitute for the Good Shepherd, many examples have been found. Pluto and Proserpine have done duty for Christ and his mother. The nimbus of the gods has been transformed into the luminous nimbus round the head of the Saviour and Saints. Deucalion became the prototype of Noah, and the famous statue of Jason has been transformed into Moses receiving the Law. This subject, and all that appertains to it, has been exhaustively treated by Giovanni Marangoni, a scholar of the last century, who wrote a work which may be entitled "On the Pagan and profane objects trans-" ferred to churches for their use and ornament."

In treating of the early Christian churches in Rome, Signor Lanciani has recognised six different classes, commencing with the names of private houses where the first prayer-meetings were held, and concluding with memorial chapels that were erected at a much later period, when Christianity was finally established. It is beyond the compass of this short notice to follow the author in his instructive comments on this subject, but one cannot pass by the extract from Professor Baldwin Brown's charming book, entitled *From Schola to Cathedral*, which worthily finds a place in this volume. "In the familiar record of the first days of the Christian Church we read how the "men of Galilee, who returned to Jerusalem after the ascension, 'went up into the "'upper chamber,' which was at once their dwelling-place and their house of prayer "and of assembly. There, at the first common meal, the bread was broken and the "cup passed round in remembrance of the last occasion on which they had sat at "meat with Christ. There, too, they assembled together for their first act of church "government, the election of a successor to the apostate Judas. All is simple and "domestic, yet we have here the beginnings of what became in time the most wide-"reaching and highly organised of human systems. An elaborate hierarchy, a com-"plicated theology of the sacraments, were to arise out of the informal conclave, the "memorial meal; and in like manner, out of the homely meeting-place of the disciples "would be developed the costly and beautiful forms of the Christian temple." Rome possesses authentic remains of these houses of prayer, and portions of two dwellings in which Peter and Paul found hospitality on the occasion of their visit to Rome are still in existence. The theory accepted by many modern writers respecting the transformation of these halls of prayer into regular churches has much to recommend it. The meetings were held in the *tablinum* or reception room, which opened on the *atrium*

or court, and this was surrounded by a portico. In early days the *tablinum* could easily accommodate the small congregation of converts; but, as this increased in numbers, that portion of the portico which was in front of the meeting-hall was occupied. When the congregation became still larger, there was no other way of accommodating it, and sheltering it from rain or sun, than by covering the court either with an awning or a roof. There is very little difference between this arrangement and the plan of a Christian basilica. The *tablinum* becomes an apse; the court, roofed over, becomes the nave; the side wings of the peristyle become the aisles. Some few years ago a document of the time of Diocletian was discovered, giving a full account of an official visit made by the Roman governor of Cirta (Constantine in Algeria) to the Christian meeting-house in that city. Not only the names of the faithful there assembled are given, but a long list of effects, including apparel of all kinds for the poorer brethren of both sexes, in order that they might take their seats at the love feast in comely attire. The theory in regard to the *tablinum* is equally applicable to the *schola*. With an increased congregation it became a *presbyterium*, or place reserved for the bishop and clergy, while the audience stood outside, under the shelter of a tent or roof supported by upright posts. Here also are the architectural elements of a Christian basilica. The origin of oratories and churches built over the tombs of martyrs is easily explained. The privilege of erecting imposing tombs to the memory of Roman patricians, generals, and magistrates was conceded also to Christians, who preferred the quietude and safety of the grave in the heart of the catacombs to the pompous luxury of a mausoleum above ground. The grave of a martyr became the altar, and the rock over and around the grave was cut to provide standing-room for the clergy and the multitude of the faithful. More than fifty churches in Rome owe their existence to the simple grave which no human hand was allowed to transfer to a more suitable and healthy spot. Respecting the Pagan temples and monuments in the city that were transformed into churches, Signor Lanciani observes that the experience of twenty-five years both above and below ground enables him to state that every Pagan building, which was capable of giving shelter to a congregation, was transformed, at one time or another, into a church or chapel. This was equally the case in other cities of the Roman Empire. The early Church was a poor community, and it is reasonable to suppose that deserted temples could be secured on easy terms.

The subject which gives a title to this book is far from exhausted. The axe and the spade are still at work, and not only subterranean Rome, but long-deserted corners of the old Empire are giving up their buried records of religious and social life during the first three centuries of the Christian era. Syria was the birthplace of Christianity, and Rome, as the capital of the then-known world, was the metropolis for all peoples, and for all creeds and communities, both religious and social. But for the development of Christianity we must turn to North Africa, for it was in and through Africa that the new faith became the religion of the world. Hear what the great historian Dr. Mommsen says:—"For the literary conflict of the faith Africa furnished by far the "most and the ablest combatants, whose special characteristics found a true and mighty "field for their display in the onslaught on the old gods. A mind—intoxicated at first "by the whirl of a dissolute life, and then by the fiery enthusiam of faith—such as "utters itself in the Confessions of Augustine, has no parallel elsewhere in antiquity." It is, then, to North Africa, where Christianity in its infancy had greater freedom of action, that the historian, hand-in-hand with the archæologist, must turn for further material in developing this interesting subject, and the material is there and in abundance. A concise history of early Christianity, in the light of antiquarian research in all countries that owed allegiance to Rome, has yet to be written. Let us hope that its author, whatever may be his nationality, will approach the subject with the same enthusiasm and with the same enlightened scholarship that Signor Lanciani has shown in his volume on Pagan and Christian Rome.—Alex. Graham.

THE EGYPT EXPLORATION FUND.

ARCHÆOLOGICAL SURVEY.

The Egypt Exploration Fund was established some twelve years ago, mainly owing to the efforts of the late Miss Amelia B. Edwards, the late Sir Erasmus Wilson, and Professor R. S. Poole. It is supported entirely by subscriptions from all parts of England and America, the latter country, especially, having contributed largely of late. Its objects are, according to the rules:—

"1. To organise excavations in Egypt, with a "view to the elucidation of the History and Arts "of Ancient Egypt, and the illustration of the "Old Testament narrative, so far as it has to do "with Egypt and the Egyptians; also to explore "sites connected with Greek History, or with the "antiquities of the Coptic Church.

"2. To publish periodically descriptions of the "sites explored and excavated, and of the antiqui-"ties brought to light.

"3. To ensure the preservation of such antiqui-"ties by presenting them to museums and similar "public institutions."

During the Fund's twelve years' existence much good work has been accomplished, and the results are embodied in some eleven interesting and valuable memoirs, such as "The Store City "of Pithom," by M. Naville; "Tanis," Parts I. and II., and "Naukratis," by Professor Flinders Petrie; "Goschen," "The City of Onias," "Tel "el Yahudieh," "Bubastis," and "The Festival "Hall of Osorkon II.," by M. Naville.

Under the auspices of the Fund, the Archæological Survey was started in 1890, with the full approval and support of the Egyptian Government and of the Director of the National Egyptian Museum at Gizeh, its object being to preserve full records of the monuments in Egypt, which are fast perishing under the ravages of time and the more destructive agency of modern vandalism.

In July 1890 the services of Mr. Percy E. Newberry were engaged, and after preliminary studies under Mr. F. Ll. Griffith's direction, in the course of which the published and unpublished materials relating to the archæology of the district of Miniyeh were collected and examined, he started for Egypt and was there joined by Mr. G. W. Fraser, who had in the meantime been engaged to make the necessary plans and to assist by his local knowledge. Arriving in Upper Egypt towards the end of November 1890, these explorers settled at Beni Hasan, for the purpose of surveying the rock-cut tombs in the cliff on the east bank of the Nile, and also of exhaustively copying, tracing, and photographing the hieroglyphic texts and wall-paintings for which these tombs are celebrated. They are among the most important existing monuments of the Eleventh and Twelfth Egyptian Dynasties. Mr. Newberry and Mr. Fraser worked in the tombs of Beni Hasan from the end of November 1890 till the early summer 1891, during which time Mr. Newberry took outline tracings of all the wall-paintings in six of the painted tombs, and copied all the hieroglyphic inscriptions. Mr. Fraser, meanwhile, surveyed and planned the tombs, and excavated several of the tomb-pits. Mr. Blackden, an artist, who joined the expedition in February 1891, made a number of coloured drawings of the size of the originals, comprising groups of figures, animals, plants, birds, waterfowl, and other remarkable paintings on the walls of the tombs; and Mr. Newberry prepared the immense collection of tracings for the photo-lithographer and continued his studies of the texts and paintings, while Mr. Fraser finished the plans.

At the end of October 1891 the work at Beni Hasan was resumed and the remaining six tombs were copied. After this the exploring party (which had been strengthened by the appointment of Mr. Howard Carter) removed to El Bersheh, and made a similar survey of the tombs in that locality, many of which were hardly, if at all, known to exist. It was found that the principal tomb had been most seriously mutilated in 1888 or 1890, and another tomb, dating from a very obscure and interesting period, of which a record had fortunately been made by Prof. Sayce in 1886, was almost entirely destroyed. While reconnoitring in the desert behind the famous site of Tel-el-Amarna, Mr. Newberry had the good fortune to find some quarries of alabaster, which proved to be the historical Hat-Nub; a series of cartouches of ancient kings painted and incised on the sides of the excavation attested its importance. It is known from the inscriptions that the sarcophagus of King Merenra (Sixth Dynasty) was hewn in Hat-Nub, and, like many other royal monuments, must have been transported to the Nile bank along a causeway which still exists. It may be added that Mr. Blackden has made copies of some rudely executed, but curious, paintings representing scenes from the birth of St. John the Baptist, which decorated an ancient rock-cut church, in the quarries near Dêr-en-Nekhleh.

An interesting epitome of the work carried on during the past year, which Mr. Percy Newberry, the officer in charge, has kindly furnished for *The R.I.B.A. Journal*, is here appended:—

The sites (writes Mr. Newberry) of former excavations have all been in Lower Egypt, but this year Thebes has been the place selected, and the gigantic work of excavating the Terrace-Temple of Dêr-el-Bahari was commenced last February. This temple derives its name, meaning Northern Church, or Monastery, from some ecclesiastical mud-brick buildings of the Christian period, the remains of which are still visible. It is situated on the west bank of the Nile, immediately opposite Karnak, and is splendidly placed in a kind of long amphitheatre formed by high and rugged cliffs of golden-coloured limestone. It is thought that an avenue of sphinxes, of which some small fragments of *shale* alone remain, lead from the landing-stage to the temple. This great work was carried out during the rise of the New Empire in the Eighteenth Dynasty; it was begun by Thothmes I., and completed by

his celebrated daughter Hatasu, or, more correctly, Hatshepsu.

The plan of this temple is totally different from any other in Egypt, and consists of a long rectangle composed of four terraces, rising from the level ground up the steep side of the Libyan mountains, and terminating in a series of chambers built into the steep cliffs. The stages were apparently cut out of the rock, and retaining walls and chambers were built of carefully-squared blocks of the finest limestone. Unfortunately, the mortar used by the ancient builders is entirely disintegrated, and many of the walls have consequently fallen or become displaced.

Part of the southern half of the temple was excavated by Mariette as long ago as 1856, and the result of his work, with a plan, is to be found in his monograph, entitled "Dêr-el-Bahari." There still, however, remains an enormous space to be uncovered, and a great deal can also be done in replacing fallen fragments of walls and columns. It will also be necessary to strengthen the walls next the cliffs in places, to keep the loose and friable rock from pushing them over: this work was partly begun by the writer last season, and will be continued by him in the forthcoming winter's campaign.

The excavations last season were carried on under the direction of M. Naville, assisted by the writer, and, for a short time, by Count R. d'Hulst. Some 150 men were employed, and a large part of the north-western portion was cleared. The work of moving the rubbish was much expedited by the use of a temporary tramway with the necessary tip-up trucks, lent by the Egyptian Government through the kindness of M. de Morgan, the Inspector of Antiquities. A large altar, five feet high, was discovered in one of the chambers, and approached at the western end by a flight of steps; a small funerary chamber of Thothmes I., with remarkably fresh wall paintings, was discovered leading out of the Hall of the Altar. In another portion of the temple a large ebony panel was found, and a smaller ebony door, both probably part of a shrine; woodwork of this period is rare, and ebony unknown, so this find was a great one. The panels are inscribed with hieroglyphs, and decorated with figures beautifully carved in low relief. Rubbings and measured drawings showing the construction were made by the writer, and the panels were packed and sent to the Gizeh Museum, near Cairo.

The sculptured and painted walls of this temple show some of the most beautiful and refined work in Egypt; it is proposed to publish copies of the whole of them, with facsimile drawings in colour of some of the best examples, together with complete measured drawings of the building. The architectural remains are most interesting: the large use of simple sixteen-sided columns, similar to those of the Twelfth Dynasty, with plain square abaci and architraves, must have given the temple an air of refinement, and the effect of the whole pile, with its tier upon tier of columns, and flights of steps, must have been immensely imposing.—P. E. Newberry.

The excavations will be continued during the coming winter by M. E. Naville, Mr. Hogarth, and Mr. Percy Newberry; an artist will also accompany the expedition to copy and facsimile the walls.

BIBLIOGRAPHICAL NOTES.

Most artists are content to formulate their grievance against the order of things in the well-worn statement concerning the disproportion of art to life in the matter of length. We architects have a more serious complaint; art for us is as broad as it is long—and broader. The tableful of books before me, which represents a portion of the Institute's receipts by gift and purchase since the beginning of the session, makes one feel that an intelligent member who realises his Library privileges must cry out in parody of Terence, "I am an *architect*: to me nothing "human comes amiss." Whence this all-embracing capacity? It is the outcome partly of the fact that all architects are universal scientists (witness Vitruvius, Book I., and the unfaltering testimony of our own inner conceit), and partly of the fact that men who are or have been architects, and consequently have a claim on our literary appetites, write books like *Tess of the D'Urbervilles* and Alberti's *Hecatomphila*.

Not that I have either a novel or a *quatrocento* love-treatise on the table before me, though the text of my discourse is as bulky as need be, whether you gauge it by geographical miles, by weight, or—in a few cases—by dry measure.

With India we are always in touch; and it is not surprising to find two or three volumes dealing with the art and antiquities of that Continent. The Government of India presents Sir Lepel Griffin's *Famous Monuments of Central India*, which is, as far as illustrations go, an album of photographs; and we have also received *Les Monuments de l'Inde* [Firmin-Didot et Cie., 56, Rue Jacob, Paris], the important work by Gustave le Bon. What is this from Shanghai? Yet another album of photographs; which shows among other things that Shanghai is not made more beautiful by its modern and "European" buildings. This perhaps is not the fault of Mr. Frederick M. Gratton [*F.*], one of whose buildings, a commercial block, is the subject of a view. Asia is also represented by a pamphlet on the curious subject of *Latrines of the East*, written by an American, Mr. E. S. Morse, and presented by Mr. Edward Falkener. America further supplies a "Blue" book (in all but colour) on *Fire and Building Regulations in Foreign Countries*, a compendium of well-collected information for which we may gratefully thank the Statistical Bureau at Washington, and two philosophical articles written and presented by Mr. Barr Ferree, one on *Comparative Architecture*, and the other on *Christian Thought in Architecture* (published in New York, 1892). Is "philosophical" the right word? Perhaps not. The essays are welcome, any way, as specimens of that higher speculation on things architectural

which carries us for a while out of the world of quantities and drains.

The "World's Columbian" is of course not left out in the cold—we have the "*Art*" *Portfolio* of the Exposition (what is "Art," by the way?), and a bulky quarto relating to the *Auditorium Hotel* at Chicago, both of which are presents. From Chicago I would suggest a diversion to the golden age of Italy, of which we are reminded by a bound volume of Ongania's *Arte Italiana*, sent through Mr. Chivers of Bath. We know the editor, and expect a good deal of him, but not more than he has here performed, in quality, variety, and quantity. *Pitture Sculture ed Architteture di Padova* 1795 is one of those captures from the bookstall with which most of us hurry home to our own shelves, but which Mr. Cates gives to a grateful Institute. Do not overlook the quaint plan of Padua near the end. With an allusion to three thin folios of monuments of Vienna we may work our way homeward through France, from which country we receive Adrien Joigny's *Histoire des Ordres dans l'architecture*, presented by Dujardin et Cie., the publishers. This work is an extract from the *Encyclopédie de l'architecture et de la construction*, and is specially interesting as following the orders, by description and illustration, from their almost prehistoric rudiments into the Romanesque debasements and the subsequent developments. Then there are two short illustrated manuals by Corroyer, in the well-known Quantin series, entitled *Architecture Romane* and *Architecture Gothique*. "Romane," need I say, is Romanesque and Byzantine, and the term "Gothique" is allowed to include English examples. Stereotomy, that not yet naturalised nursling, is encouraged by our purchasing M. Louis Monduit's work on the subject, in two volumes, one of text, the other of plates. Finally, before leaving France I must mention a pamphlet from the Ministère de l'Instruction Publique on the Manufacture Nationale des Gobelins.

Within the range of English subjects by English writers the scope is still sufficiently wide to suit all tastes. Mr. E. Wyndham Tarn, in presenting three of his own works, shows that not content with writing on Roofs and the Mechanics of Architecture, he can produce a treatise on Light [Crosby Lockwood & Son]; and Mr. Mellard Reade [*F.*] has given fresh proof of his energy by a paper on "Eskdale drift" and glacial geology.

There is also a handful of second editions—namely, re-issues of Professor Banister Fletcher's *Arbitrations* and *Valuations* [B. T. Batsford], and that friend of the examinee *Shoring and Underpinning* [B. T. Batsford], by the late Mr. Stock. Messrs. Stevens & Sons send *Innes on Easements* (4th edition); Messrs. Longmans, Green & Co. contribute a new revision of Dr. Bruce's unequalled book on *The Roman Wall of Northumberland*, and Mr. Ernest Turner has forwarded, for the Loan Collection, an additional copy of his *Hints to Householders* [B. T. Batsford]—a useful little book which, as its name implies, is a manual not for architects alone, but for all who are ambitious of the responsibility of owning or occupying a house. In connection with the last-named may be mentioned *Notes on Rating* ["Estates Gazette," Ltd.], written and presented by Mr. W. G. Cooke [*A.*].

Mrs. Strong has sent from the library of the late Mr. Alfred Strong [*F.*] a welcome volume of views of London, with old-fashioned plates (1832), and the famous travels of Sir John Mandevile, Knt., which, as it contains architectural matter of a kind, may be looked upon as something more than an addition to the recreations of our Library. The same lady has also presented a large number of other books.

From Mr. Charles Aldridge we have accepted a pamphlet of his own authorship, on *The Priory of the Blessed Virgin and St. James*, "the one relic "of antiquity in that most modern of English "towns," Birkenhead, containing various drawings of details and reproductions of old views.

A short but interesting paper by Mr. W. Arthur Webb [*A.*] on the *Restoration of the Church of St. Mary Overie*, published in the July issue of *The Newbery House Magazine*, has been presented by the author, and it will be duly bound up in pamphlet form with the Institute Collection of similar short articles. Mr. Webb acknowledges indebtedness to Mr. Simpson, clerk of the works, for information supplied from his own diary of the work as it proceeded, and also to Mr. Dollman, the author of the monograph on this well-known Southwark church.

It is difficult even in these days of small books on big subjects to understand the purpose of the *Short History of Church Architecture* presented by Mr. Savery, a member of "The Society of "Architects, founded 1884." None the less should the Library and its readers thank him for it, for it is a suggestive as well as a very pretty little book; but the subject is an overpoweringly big one for eighty-eight small pages containing illustrations and a glossary, *and* a chronological table—to say nothing of a chapter on the Renaissance, a term which, in this instance, is made to cover parenthetically St. Augustine's, Kilburn, and Holy Trinity, Sloane Street.

When Mr. Jackson took his part in the production of *Architecture, a Profession or an Art*, some of us had, perhaps, forgotten his little, long-ago book on *Modern Gothic* [Henry S. King & Co.]. Both, I am glad to say, have now been presented to the Library: the latter is full of tough, clear, and sometimes prophetic truths, as when he sees and writes that the true object of the Gothic revival is to revive not *Gothic* Art, but Art itself. The Council have also done well to purchase Mr. Jackson's book on his own College of Wadham—a work which seems to be a firstfruits for Oxford of the services which Messrs. Willis and Clark have already performed for Cambridge.

PAUL WATERHOUSE.

The Inland Architect, U.S.A.—The August number contains some beautiful illustrations of monumental buildings at the Chicago Exhibition.

OBITUARY.

Thomas Hawksley, F.R.S. [*H.A.*]

Thomas Hawksley, M.Inst.C.E., who died on the 23rd inst., had been an Honorary Associate since 1877. Born at Nottingham in 1807, he began practice as a civil engineer when quite a young man, being appointed at the age of twenty-three to construct waterworks in his native town. Removing to London in 1852, his name soon became widely known from his connection with the extensive works, then in progress, connected with gas and water supply and drainage and hydraulic works. He it was who first initiated and carried into practice that greatest of boons to urban populations, the system of "constant ser-"vice" in water supply, which has now become a necessary condition of every well-regulated town. He joined the Institution of Civil Engineers in 1840, and was elected President in 1871, serving the office for two years. He was also President of the Institution of Mechanical Engineers, was one of the founders and first President of the Gas Institute, and in June 1878 received the great scientific honour of election into the Royal Society. The sovereigns of Austria, Sweden, Denmark, and Brazil awarded him at various times decorations for services rendered to them. Great weight was attached to the opinions expressed by him when summoned to give evidence before the Royal Commissions on Water Supply and kindred subjects; and a recently issued Report of one of these Commissions confirms his often-expressed opinions in favour of the Thames as a source for London's water supply.

The late John Baird [*F. Retired*].

John Baird, whose death was announced last month, had had a long connection with the architectural profession in Glasgow. He began his career in the office of Mr. Watt, and subsequently entered that of Mr. David Hamilton, with whom he remained till that gentleman died. Hamilton in his day stood high in the profession, and, if I mistake not, received one of the prizes in the competition for the Houses of Parliament. He was architect for all the principal buildings of Glasgow and its neighbourhood at the time; and mention may be made of Hamilton Palace, which received a new front; Lennox Castle, the British Linen Company's Bank, the Western Clubhouse, &c. Baird was actively engaged on these works, and it was thus under this eminent master that he finished his education as an architect before starting on his own account. This he did in partnership with Mr. Smith, Hamilton's son-in-law. It was afterwards that he became a partner with "Greek "Thomson," who was his brother-in-law. His connection with Hamilton and Greek Thomson almost renders it unnecessary to state that Baird's designs were generally in the classic style. Among his works he did St. Peter's Church and parsonage at Kirkaldy, the Pollock Academy, Pollockshaw's Academy, Barrhead; Rosslea, Dumbartonshire; Balsusney, Fifeshire; and the Caledonian Road Church, Glasgow. He was Vice-President of the Glasgow Institute of Architecture, and was at one time senior Captain of the First Lanarkshire Engineer Volunteers. As a Freemason he was Provincial Grand Senior Warden for Glasgow. Mr. Baird, from his genial disposition, was a welcome favourite in the literary and artistic coteries of his day. He was about the last of one set of a past generation, which included Hugh Macdonald, author of *Rambles Round Glasgow*; Alexander Smith, whose brilliant fame as a poet is still remembered; and John Mossman, the sculptor. It was through friends in this set that I first made John Baird's acquaintance. My archæological tendencies began at an early period from sketching the old houses about Glasgow, and I found him full of knowledge about these remains of the past. This knowledge made him an invaluable companion in excursions among the ancient remains not only in St. Mungo's city, but also to the localities of interest in its neighbourhood, such excursions being at the time a favourite custom of the particular set of friends just mentioned. I think the last day I spent with John Baird was in "The Bishop's Castle" at the International Exhibition of 1888 in Glasgow, and our principal attraction there was the collection of old prints and drawings showing what the city had been in former times. He lived to a good old age, and from his wide knowledge and experience earned the title of "the Father of the Architectural Pro-"fession" in Glasgow.—William Simpson.

LEGAL & PARLIAMENTARY NOTES.

Taking down House—Building Line.

The Attorney-General *v.* Hatch.

There is no little difficulty in giving a precise meaning to the language of the Public Health Act, 1875, such as could be easily applied to all the different circumstances which may arise, and, as a learned Judge of the Chancery Division lately observed, probably the general construction suggested in *James* v. *Wyvill* is the right one, that there is an intentional vagueness because precision is impossible; and that a judge or jury must, in each case, say what amounts to "a taking down of a "house or building, or the front thereof." Section 155 of the Public Health Act, 1875, gives power to an urban authority to regulate the line of buildings, whenever any house or building situate in any street in an urban district, or the front thereof, has been taken down in order to be rebuilt or altered. In the case of *The Attorney-General* v. *Hatch*, the Corporation of Richmond claimed an injunction to restrain the defendant from building otherwise than in accordance with a building line prescribed by them under this section. The house in question consisted of a basement, a ground floor, and two storeys above. The ground floor had been used as a baker's shop, with a bakehouse in the rear. The defendant proposed to convert the whole of the ground floor, first floor, and bakehouse into one large shop; but the top floor and the basement were to remain

unaltered. In December 1892, the defendant gave notice to the Corporation of the proposed alterations, and obtained leave to put up a hoarding "during alterations of shop front." The Corporation being desirous of effecting a general widening of the street, negotiations were entered into as to the new line of frontage. On the 18th February 1893, the negotiations being definitely concluded, work was at once begun, the front wall of the ground and first floors was removed, and the second floors supported by temporary props. A week later notice was given the defendant of a meeting of the Council of the borough to be held the 1st of March for the purpose of prescribing a new building line. At this meeting a resolution was passed prescribing the line in which the front of any house to be built or rebuilt should be erected, and stating that the defendant's house must be set back ten feet to bring it within the new regulation. Notice was at once served on the defendant, whose building had then progressed so far that the temporary props by which the second floor was supported had been replaced by an iron girder and brick piers. The defendant declined to comply with the regulation, whereupon this action was brought by the Corporation for an injunction, as stated above. It was contended for the defendant that the alterations did not constitute a rebuilding within the meaning of the section; and further, that the notice served upon him was too late. Mr. Justice Kekewich delivered judgment on the 2nd May, holding, in favour of the plaintiffs, that the house had been taken down within the meaning of the section; but, on the second point, that the owner having already commenced rebuilding beyond the line afterwards prescribed, the notice was too late; and so the action was practically dismissed. The Corporation appealed, and the case came before Lords Justices Lindley, Lopes, and Smith, who held, reversing the decision of the Court below, that neither the house nor the front of it had been taken down, a substantial part of both still remaining. Consequently the power of the urban authority to prescribe a building line had not arisen, and an injunction was refused. The second contention of the defendant was not entered into by their Lordships.

Architects' Certificates.

Lelièvre *v.* Gould.

This case came before the Court of Appeal as long ago as February last, but owing to pressure of other matter it was found impracticable to include it among the legal notes in the earlier part of the session. It is, however, of sufficient interest, in its bearing on the responsibilities of architects and surveyors, to warrant a brief notice in this volume of *The R.I.B.A. Journal*. The action was brought by the plaintiffs Lelièvre and Dennes against the defendant Gould to obtain a declaration that the defendant, a surveyor, was liable to make compensation to them for the loss they had sustained by reason of untrue certificates which he had given as to the progress made in the building of certain houses. The defendant alleged that in giving the certificates he had acted *bona fide* and in the belief that the statements contained in the certificates were true. The official referee, to whom the action was referred for trial, found that there was no fraud on the part of the defendant, but that in giving the certificates the defendant did not use due or proper skill or diligence, and acted with negligence, but that there was no contract between the plaintiffs and the defendant in respect of the certificates, and that therefore the defendant was not under any duty towards the plaintiffs, and judgment ought to be entered for the defendant. The plaintiffs applied that this order for judgment should be set aside, but the Divisional Court (Mr. Justice Wills and Mr. Justice Collins) refused the application, a decision which the Court of Appeal, consisting of the Master of the Rolls, Lords Justices Bowen and Smith, declined to reverse. The facts of the case—which included certain side-issues—the arguments of counsel, and the judgments of the Court, will be found set out at length in 62 *L.J.* Q.B. p. 353; but for the present purpose it will be sufficient to quote the brief summary appearing in the *Law Journal* of the main points decided. The decision, says that journal, has now finally settled the much-debated question whether the architect or surveyor employed under a building contract is under any liability to the builder for any inaccuracies or for any act of omission in the discharge of the duties imposed on him by the contract. In such cases there is no privity of contract between architect and builder. The architect's contractual duties are towards the employer only. For any neglect of them causing damage to the employer he is responsible in damages, and is not, as was currently supposed by the profession, entitled to the immunities of an arbitrator to protect himself by his certificate from his own negligence. In *Cann* v. *Wilson* a valuer employed by a mortgagor was held by the Court to be liable to the mortgagee for damages arising from adopting the valuation, and in the case now under review it was attempted to render the building owner's surveyor liable to the builder's mortgagees for losses alleged to have been sustained by them by reason of his certificate. But this contention was rejected by the Court of Appeal, which decided that, in the absence of fraud, the surveyor owed no duty to the mortgagees, and held that *Cann* v. *Wilson* must be treated as overruled by the decision of *Derry* v. *Peak* in the House of Lords. There is no distinction between the position of the builder and of his mortgagee, and the result of the decisions stated is that while the building owner has a remedy against his architect for failure to do his duties under the contract, the builder has no such remedy, unless he can show fraud or collusion; and can neither recover without a certificate, nor sue the architect for errors in it, nor appeal to the Court to rectify the errors.

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